The Builder.

Vol. XLIII. No. 2058.

Saturday, July 15, 1882.

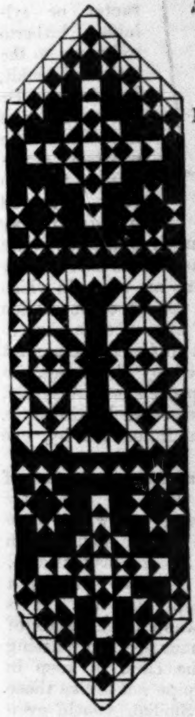
ILLUSTRATIONS.

The Principal Building, Bavarian National Industrial and Art Exhibition, Nürnberg 78
New Homes for Orphans, Swanley, Kent 80
Elevations and Plans of the New Homes for Orphans, Swanley (Double-page Engraving).—Mr. H. Spalding, Architect 82, 83
The (R.C.) Church of St. Francis of Assisi, Maidstone.—Mr. C. G. Wray, Architect 85
"Classical Poesy," Allegorical Figure for the New Burgtheater, Vienna.—Modelled by Edmund von Hofmann 87

CONTENTS.

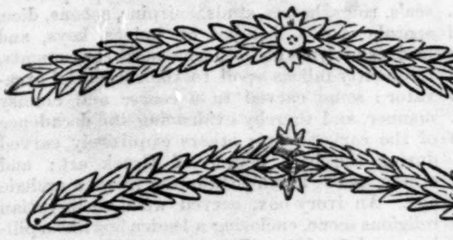
Salaminia, or the Ancient Art of Cyprus 65
Polychromatic Decoration in the Mediæval Style 68
Compositions and Drawings of Viollet-le-Duc 68
Gouthière, the Chaser and Gilder 69
Seventeenth-Century Ironwork 70
The Custom of Hiring Furniture 72
The Eastward Passage of the Thames 72
The Royal Prussian Academy of Architecture on Fires in Theatres 72
The Hamilton Palace Collection 74
Progress of Industrial Arts in Germany 74
From Abroad 75
Premiums awarded by the Institution of Civil Engineers 75
Architecture and the Royal Academy 75
A Bristol Architect Killed 75
The Bavarian National, Industrial, and Art Exhibition, Nürnberg 76
Church (R.C.) of St. Francis of Assisi, Maidstone 76
The New Homes for Orphans, Swanley, Kent 76
"Classical Poesy" 76
Church Decoration in 1882 89
A Chapter on Chimneys 89
From Edinburgh 91
New Hospitals 91
The Restoration of Manchester Cathedral 92
St. Joseph's (R.C.) Church, Bridgewater 92
Newcastle-upon-Tyne 92
Docks and Harbours 93
Cost of the Electric Light 93
Obituary 94
Monumental 94
Shops for the Metropolitan Railway Company 94
Provincial News 94
Mr. George Somers Clarke, Architect 94
The Designs for the Municipal Buildings, Glasgow 94
New Police Station, Lewes 95
International Competition 95
The Swimming Bath at the Leytonstone Workhouse 95
Hyde Park Corner 95
Decision under the Building Act 95
Hamilton Palace 95
Miscellanea 95

*Salaminia, or the Ancient Art of Cyprus.**



IN an article upon Cypriote Antiquities published recently in our columns, we pointed out the prominent part which had been played by Major A. P. di Cesnola, F.S.A., in the recovery of so many typical art-relics from the silent underground chambers of the dead in the numerous cemeteries of the province of Salaminia, or the north-easterly part of the island of Cyprus; and mention was made of the forthcoming literary work by the discoverer of these antiquities, to which it is proposed to direct the reader's attention on the present occasion, now that the book is completed. Elegantly produced, and adorned with upwards of 700 illustrations of the principal objects which fell to the fortune of Major di Cesnola to find from 1876 to 1879, there is little doubt that the volume, which is really an advanced contribution to the somewhat unclassed archæology of Cyprus,—the meeting-ground of so many artistic cults and influences,—will achieve a literary success. Its value, as an exposition of the hypogæal treasures lying yet undisturbed in the cemeteries of successive races, is considerably enhanced by the introduction from the pen of Dr. Birch, a veteran archæologist, under whose care at the British Museum a number of carved stone relics and other objects, found at Cyprus from time to time, have been placed. According to his own description, the author's way of digging in ruins appears to have been very simple, although he describes it as uncertain and expensive. He sank shafts a few feet apart at spots which bore indications of temples, palaces, or buildings, abandoning them when virgin earth or rock was reached, but tunnelling if encouraged by the appearance of the works. Digging and exploring in tombs in a different manner was arranged by dividing his men into small parties working separately, and visited when the entrance of each successive tomb was reached and made ready for opening under the eye of their employer. The uniform payment of 1s. a day, to which was added an extra payment, agreeably to a fixed rate, for the objects found, was made to each man, and, according to the price of wages in the East, this must have been a very high remuneration to the native excavators. Major di Cesnola employed among his workmen members of various creeds, and he freely accords to all those whom he employed a very high character for fidelity and trustworthiness. His desire to exhibit the collection on a large and comprehensive scale has not hitherto been successful; but it is not too late to hope that some day an opportunity may be found of at least a more extended inspection and appreciation than they have yet received.

Of the chapters devoted to the history of Salamis, and to the general idea of the antiquities, reference need not be made here, for some account was taken of these two branches of the work in the article already referred to. The golden antiquities recovered from the tombs were exceedingly numerous, principally of a sepulchral or mortuary character, formed in the most artistic way out of thin sheets or foil of precious metal hammered by the workman, who knew well how to make the most of his material, into shapes of much interest, such as fillets or chaplets for the head and brows of the dead (figs. 1, 2), pricked with indented spots and lines imitating the natural veining of leaves, and resembling exactly the fillets carved in stone around the heads of many large and iconic statues; plates or leaves in the form of the human mouth and eye, piously laid upon the features of the departed friend just previously to the deposition of the body in the tomb, frontals or bands for the forehead, earrings, and even finger-rings of the flimiest substance. Many of these objects, although manifestly intended for but the transient purpose of decorating the dead, are enriched with archaic ornamentation, such as simple foliage, mæanders, fret-work, and radiating lines. A similar practice was found at Warka, in Chaldæa, where golden veils with broad ribbons on each side of the head were found by Mr. Loftus, and at Monteroni in Northern Italy, where Mr. Dennis records the discovery of gold laminæ with archaic reliefs. The more durable and substantial articles of golden jewelry comprise necklaces of wire or drops, some of which betray by a close inspection of their details or pendants, the marvellously shameless effrontery of the fair wearers who could display about their necks and arms artistic models of the phallus and other cognate emblems, demonstrating beyond all doubt the depths of sensuality into which some, at least, of the races of Cyprus were sunk. Perhaps these emblems had come in time to be invested with a figurative signification remote from the obvious and primary meaning which one sees in them now. The earrings of solid make are of very various forms and styles; some of them are adorned with coloured glass beads or gems, and others have their catch or fastening looped into the elegantly-chiselled head of an animal (figs. 3, 4, 5, 6.) The lion, goat, bull, cock, and dolphin appear to have been favourite subjects for this class of jewelry. One of the largest and finest of them is formed of solid gold wire twisted to form a body of some bulk, and terminating at one extremity in a female head furnished with ample tresses, and having a noble aspect of countenance. On the wire are strung four rings of massy gold, enriched with granulations in the so-called Etruscan mode, alternating with three beads of dark red and variegated colours (fig. 7). The finger-rings range over the whole period of Cypriote art; they exhibit many touching instances of feeling, for among them are frequently found rings of so small a calibre that they can only have been worn by the young children of the family. On some are tender words and inscriptions in an unknown script, pricked by loving hands as a souvenir of the giver to the wearer; others bear finely-engraved native or imported antique gems in deep intaglio, of Hittite, Phœnician, or Greek art; not a few derive an absorbing interest from the fact that they are formed of Egyptian or Phœnician scarabæi, pierced and set as bezels and signets revolving on a gold or silver wire, and bearing on their base the



Figs. 1 and 2.

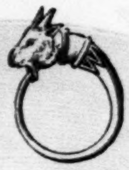


Fig. 3.

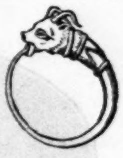


Fig. 4.

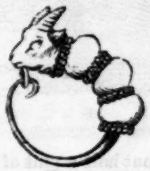


Fig. 5.

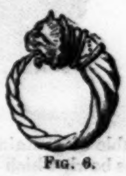


Fig. 6.

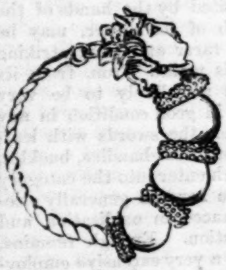


Fig. 7.

---

* Salaminia (Cyprus): the History, Treasures, and Antiquities of Salamis, in the Island of Cyprus. By Alex. Palma di Cesnola, F.S.A. With an introduction by Samuel Birch, esq., D.C.L., &c. London: Trübner & Co. 1882.

mystical and often unintelligible characters of the hieroglyphics of the Nile. Figures of Venus,—a favourite deity of Cyprus, from which she derives one of her most constant epithets,—are not uncommonly found, formed of gold, probably pendants or amulets; and a peculiarly-twisted fibula, like two turns of a corkscrew, with chased ends, and enriched with inscriptions in the Cypriote character, is represented in this collection by several valuable examples.

Silver relics, from the easily-oxidised nature of the metal, are far rarer now than gold, which is practicably indestructible, but in their own day they must have been infinitely commoner and cheaper. Yet the collection shows silver fibulæ, snake bracelets, hair-pins, earrings, ear-picks, finger-rings, scoops, spoons, a model in the form of two human lips or a mouth, perhaps the bowl of a spoon, and several objects which must be referred to ornamental or decorative purposes. Bronze, on the other hand, being under certain atmospheric conditions of a very durable nature, contributes largely to the metallic series of Salaminian relics. Perhaps a thousand objects were altogether collected by the indefatigable exertions of Major di Cesnola. They consist of mirrors, vases, and other vessels for culinary or toilet purposes, strigils, pateræ, weapons of every kind, such as daggers and lance-heads, parts of armour for man or horse, pieces of tripods, candelabra; and, in a word, representatives of every ancient use to which bronze has been applied. One of the rarest bronze objects is a very ancient *serrula* (fig. 8), a spoon-saw, capable of containing about half a pint of liquid in its bowl, which is furnished with a tang now bent out of shape, to which an ornamental handle was affixed; one of the long sides of this fearful instrument is concave, and serrated along the edge with fine indentations or teeth. There can be no doubt that it was intended to be employed for cutting the throat or other parts of the animals that so frequently perished at the altars of the numerous deities venerated at Salamis, and, indeed, throughout the island. The spoonlike cavity caught the life-blood of the devoted victim at the very moment of its gushing from the body. This was found in a tomb at Kitium, on the east coast. Some of the bronze pateræ are ornamented with Egyptian religious or mystical subjects, and of one of these Dr. Birch has supplied the author with a lengthy exposition. A bronze *étui*, or needle-case, containing a needle still threaded with a piece of cotton, probably deposited by the hands of the mourner in the tomb of its owner, may be reckoned among the rarer and more striking objects formed of this metal. Iron, from its perishable nature, is not likely to be very copiously represented in good condition in any ancient collection, hence the swords with leaf-shaped blades and short cross-handles, buckles, and other objects which enter into the category of iron antiquities are here, as generally elsewhere, very far advanced in oxidisation and elementary disintegration. Enough remains, however, to show that a very extensive employment of this useful metal obtained among the ancient Cypriote inhabitants, whether they be Phœnician, Egyptian, Greek, or Roman.

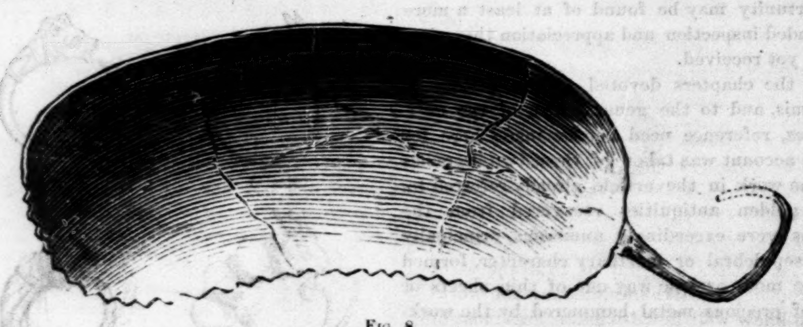


Fig. 8.

Lead, also, is not a metal well adapted for long preservation; its condition, after the lapse of centuries, varies very much with the degree of humidity or of acidity possessed by the surroundings to which it has been exposed. It is well known, for example, that the acid air of London acts in a very deteriorating manner upon lead, and the same may be said of lead exposed to humid and saline earths in the subterranean chambers of a Cypriote necropolis. On the other hand, under favourable conditions of dryness of bed, or a still, neutral condition of air, leaden objects, 2,000 and 3,000 years old, have been exhumed at Cyprus, and many other sites, still exhibiting a pristine freshness of contour and a sharpness of outline of which actual inspection can alone convince the archæologist. Among the leaden objects which may be referred to as of peculiarly great rarity, are a stamped group of a gladiator or huntsman in combat with a lion, several bullets inscribed in relief with Greek inscriptions, toy-jugs and ornamental boxes, with simple floral or geometrical patterns upon them. Rarest of all, and of the greatest value as affording criteria upon which to suggest a date, are parts of a toy chariot stamped in lead, with the horse, pole, and wheels partially preserved; the wheels are oval or elliptical, not round, as we should expect, and the spokes have a very peculiar form, being composed of a diameter line along the major axis, with two short bars at right angles to it, trisecting this diameter. These spokes are identical with the arrangement of those upon a chariot-wheel painted on the celebrated Panathenaic amphora found by Mr. T. Burgon at Athens, and considered by Mr. C. T. Newton, of the British Museum,—where it is deposited,—to be, from the archaic lettering upon it, the oldest extant example of that particular style of vase. Its date may thus be referred to between 400 and 500 B.C. Leaden rolls, many of fairly good size, and inscribed with sentences in the Cypriote character, form a peculiarly valuable class of relics, from the fact that they add considerably to the extant series of Cypriote inscriptions, which is still somewhat meagre, few of any length or historical importance having been found as yet.

Ivory and bone objects appear to have been very extensively employed in Cyprus for ornamental, decorative, and domestic purposes,—seals, rings, bosses, studs, hairpins, spoons, dice, spatulæ, boxes, handles of knives, keys, and bridges of lyres and other musical instruments, frequently fall as spoil to the successful excavator: some carved in a coarse and clumsy manner, and thereby evidencing the decadence of the carver's art; others exquisitely carved during the best period of Greek art; and others, again, manifestly dating from an archaic age. An ivory box, carved with an Egyptian religious scene, enclosing a leaden box like a pill-box, and itself protected from injury by two bowls of terra cotta luted together at the rim, so as to form a modern case or envelope, was found in an outer tomb; and another tomb yielded an archaic figure carved out of bone, a kind of pin-box, about 10 in. in height (fig. 9), form of a draped female. This opens in the centre, and contained a few small pins of ivory or bone. The art here is very simple, and indicates the influence of Egyptian modes on the taste of a Greek artist, who has disposed the long and severe folds of the drapery with great care, and yet retained a natural position for the vestment. The eyelids, eyebrows, and some other parts of the figure show that the art of painting was called in to assist the carver, the colour having been applied to them with a brush. The hair is gathered up in a knot, and there are small wings on the head, which have led to the conjecture that the little figure may have been intended for a representation of Medusa. The arms were attached to the body by small plugs or pins. Altogether, it is a fine example of the art of the toy-carver 2,000 years ago. Shell remains exist in the form of toilet-boxes, and ornamental rings or pendants, cut from bivalves of convenient dimensions, several having Cypriote and Phœnician inscriptions upon them, which sufficiently attest the high antiquity to which they must be assigned. Of stone remains, the author has not acquired a very large collection, and this is, as he tells us in the preface, not because he did not find any, nor make researches for them, but he was unable to treat them like small objects which for their portability are more easily removed. There are, however, several slabs with Cypriote inscriptions engraved upon them, of the highest value to the philologist in the present state of research into the origin of this lost language. One slab in particular bears, three times repeated, a character or syllable hitherto unknown to the writers Schmidt, Deecke, and De Luynes, who have paid the greatest attention to the subject. Carved heads appear numerous, and divide themselves into the styles of the four great racial classes who successively ruled the island; but there are many in which is shown the blending of the art of one nation with that of another of approximate chronological position. For just as Græco-Roman art is so frequently illustrated by the antiquities of Italy, so Cypriote sculpture shows Assyrian, Phœnician, Egyptian, and even Hittite style, influencing, and in turn influenced by, one another.

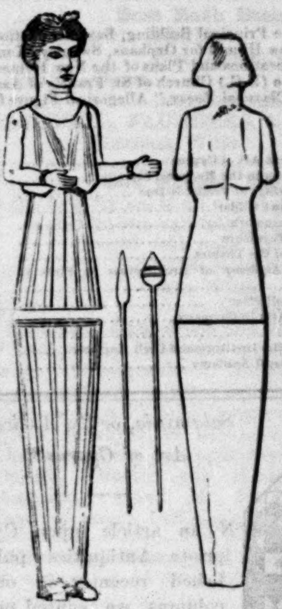


Fig. 9.

It is curious to find a trumpet formed of terra-cotta, about 3 ft. long, so compactly baked that, after the lapse of twenty-three centuries, it may be made to give no uncertain sound when in the hand of a dexterous musician, its voice vieing with the note produced by a metallic post-horn of the present day. It is curious, also, to observe the carved heads of music-players, having a mouth-strap passing round the head under the ears, to keep in position a double flute or pipe not unlike those which the Calabrian or Sicilian youth, even now, fashions with a pruning-knife out of the local reed, one being designed for the sharp notes, the other for the droning accompaniment. No doubt, rude music, often then, as now, was performed upon some of these "scrannel pipes of wretched straw"; but if "lean and flashy songs" sometimes grated on the ancient ear, the fine bronze pipe, which Major di Cesnola found, and which Mr. W. Chappell, F.S.A., the historian of ancient music, has rightly described here for him as the only one of its kind that has been found throughout the whole range of classical antiquities, could discourse music sweetly enough in the hands of its skilled owner, whom it accompanied to the silent, tuneless grave. Rings of bronze, sliding round the barrel, according to their position shut or opened notes so as to enable the performer to alter the scale at pleasure, a similar arrangement being noticeable upon the ivory flutes found at Pompeii. The gem of the stone objects is undoubtedly the little tripod basin, covered with Cypriote inscriptions radiating from the centre of the bowl, and having a single character engraved on the bottom surface of each of the feet. The carved sarcophagi, and the tomb-stones with Greek inscriptions, as well as the finely-carved tympanum of a Byzantine doorway, with several scenes from the life of Christ in high relief, are of great interest, and show the wide range of time which is represented by this portion of the collection. Of alabaster, serpentine, chalcedony, crystal, and other precious stones, the best pieces are described at length; and the chapters devoted to Assyrian and Babylonian cylinders, carved in jasper, hæmatite, and steatite or soap-stone,—a fertile subject, not altogether satisfactorily worked out as yet by archæologists,—Greek and Roman engraved gems, cones, scarabæi of Egyptian and Phœnician art, pieces for inlaying, and so forth, appear to contain material for the deepest study and reflection.

The glass relics are, with the exception of the terra-cottas, by far the most numerous in the collection. Four thousand specimens, many among them being unique in shape, size, or ornamentation, are a very good number to have rescued from the dark chambers of ancient burial-places on the plains and on the hill-sides of the island. There can be no doubt that some of these beautifully-painted glass vases were made at Tyre by Phœnician craftsmen, who were for a long period of time in sole possession of the secret of producing and manipulating this then precious and expensive material. Of these, one in form of an amphora, with golden lining to the mouth, and painted with peacocks, foliage, and flocks of birds, has never been surpassed in any collection. But the hand-painted vessels are far outstripped, in point of beauty of colouring, by those which, originally transparent, have acquired, by long exposure to the effects of time, a brilliant colouring at Nature's hands; for she has enriched them with the ever-shifting, quick-glancing hues and gleams of iridescence, and in this respect no human agency has ever reached, or even approached, the secret of imitation. Of the early kind of glass, tolerably thick in fabric, of a pale or dark blue, with undulating or zigzag lines, white, yellow, blue, or other colours, many vessels for toilet or perhaps medical uses, resembling wine-vessels or water-jugs, were exported by the makers in Tyre and Sidon to Asia Minor, Cyprus, Greece, Etruria, and, in fact, whithersoever trading enterprise and commercial security were current. Their use appears to date from the fourth century B.C. The finest forms are the alabastron, of cigar-shaped body, with broad, flat lip; the amphora, diota, and hydria. None have much interior capacity for liquids. It is strange to see among the illustrations in the book the familiar modern egg-cup, with the shell of an egg still remaining in it, just as it was placed in the tomb, more than twenty centuries ago, as a last offering to the dead. The cup is of thin glass, streaked in colour, and made with double skin, turned over, like some of the cheap German glass ornamental vases which may be seen in our modern toy-shops. Curiously enough, the practice of depositing eggs as offerings in a tomb has been lately very powerfully illustrated by the discovery of a *cylix* or *cothon* (a two-handled cup), of black ware, at Cameiros, in Rhodes, containing the remains of a sepulchral offering of no less than five eggs and two astragali, or knuckle-bones. It is now in the British Museum. Painted glass, glass vessels with large oval or circular depressions, others with tears or drops studded all over their outward sides, and delicately thin bowls moulded with Greek inscriptions or classic ornaments abound. One (fig. 10) bears the heads of Gorgons, and the *pelta*, or shield, used by and conventionally attributed to the Amazons, combined with annulets and simple floral decorations. It is finely iridescent with a constant change of tints which is impossible to describe, varying as they do incessantly from gold and opal flashes to blue, green, yellow, and purple tints as the light is allowed to fall upon it. The models of heads in solid glass of various colours, taking the forms of tragic or comic characters, or derived from animals, must not be passed by altogether unnoticed. These little pendants, whether toys or ornaments for women's necklaces no one can say now, appear to be made much in the same manner as the glass-workers now-a-days use to construct their brittle toys and nick-nacks, but the deep blues, browns, and solid yellows of the ancient examples may be sought in vain in the colourless transparencies, or the black of the modern work.

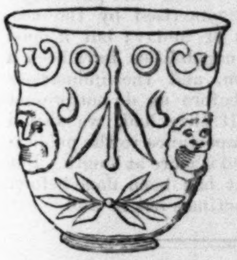


FIG. 10.

Terra-cotta fictilia share the most important place in this collection of "Salaminian things" with the glass in point of numbers. The diversity of the objects, and the great range of time represented by them, are truly remarkable. Nevertheless, the number of those which are to be referred to the archaic period of uncoloured clay, or clay sparingly coloured with streaks, concentric circles and bands, is far greater than those which indicate a later age. In fact, more than nine-tenths of the whole of the fictile pottery found by Major di Cesnola, and described in his work, would be classified under the archaic age of not later than the fifth century B.C. Toy chariots (fig. 11), with wheels that will yet revolve, being as well set as when first made, horns or pipes, statuettes and heads of statuettes in various ethnical styles, and showing every kind of treatment, religious, processional, mythological, tragic, heroic, comic, domestic, and grotesque, such as goddesses, among whom Aphrodite and Eros are pre-eminent, priestesses, musicians, warriors, masks, animals, centaurs, and miscellaneous groups abound. Not a few of these are designed and executed in the purest and most artistic manner. Of one particular class, that of the musicians, the author records a curious and valuable series. Every one of them carries a lyre or small harp (fig. 12), but these instruments differ from each other in greater or lesser degrees. Among them are females whose physiognomy, stature, costume, and head-gear are undoubtedly Greek, with lofty coronets of elaborate patterns. Another class of harpists are clad in tunic and toga, chiton and peplos, but they wear no lofty coronets, their hair being bound with fillets, and in some cases the heads being covered with veils. Another class is remarkable for wearing robes resembling stoles over their togas. A bracelet, of considerable dimensions, is nearly always represented upon the right wrist of these figures. The finely-modelled clay groups are most varied in character,—fishermen, snake-charmers, plump children, and withered hideous hags, cringing beggars, swaggering dandies, pedlars, actors, pedagogues, gladiators, hermaphrodites, boys playing at games or going to school, the figures and attitudes which we are accustomed to attribute to Eros, Psyche, Hercules, Æsculapius, Telesphorus, Genius, Ulysses, Silenus, Somnus or Hypnos, Leda toying with her Swan, Nymphs and Muses, are richly represented in this branch of the collection, and the critical remarks which accompany the description of the objects indicate an extensive archæological knowledge on the part of the writer.

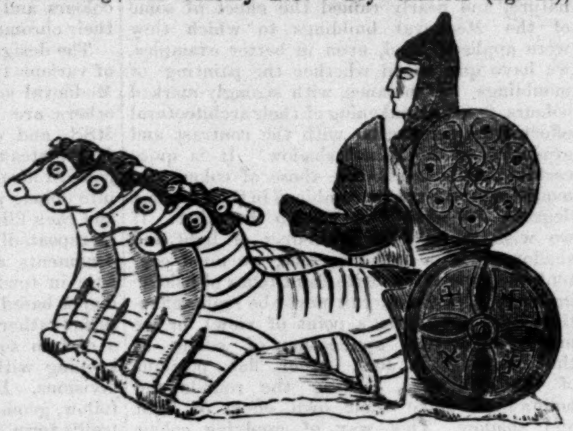


FIG. 11.

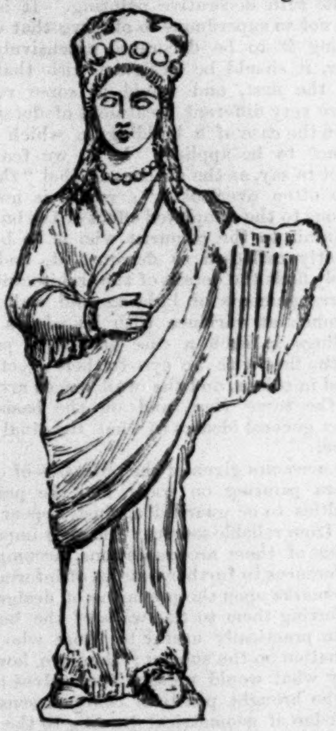


FIG. 12.

Earthen vessels also are, as may be readily imagined, very numerously represented, and as to variety, there is hardly a shape or size familiar to the students of ancient pottery which is absent from the collection; while, on the other hand, there are several examples which are unique, and the employment of which can with difficulty be determined. Many of the larger urns and vases have their archæological value greatly enhanced by the fact that they carry inscriptions, either scratched or painted, upon their surfaces, in Phœnician, Cypriote, and Greek characters; and from the lamps, which are, of course, of a later period, a large list of potters' names could be compiled. Of the archaic vases, the finer specimens indicate all the peculiarities which were pointed out not long since in our notice of the Vase Room in the British Museum. Two, however, of archaic red ware, Phœnician in feeling, are unique in exhibiting figures of men, birds, and trees, painted in black pigments upon them, in addition to their usual enrichments of concentric bands and disks or annulets. The tree on one of them (fig. 13) is of the sacred or *hom* kind, being the emblematic palm or date which is found to be of significant use over many Asiatic regions, and occurs on Assyrian relics, royal Chaldean breastplates, in Egypt, India, and even China. According to the author, a reminiscence of the *hom* is often seen to this day in the patterns of Turkey carpets, and the Greek *anthemion*, or honeysuckle ornament, has been referred to by some as a variety of this symbol divested of its significance, but retained as a merely ornamental device of harmonious lines. The other vase shows rude figures of men walking, carrying faggots of wood to a funeral pyre. These figures give extraordinary importance and value to the vase on which they appear, for among thousands of vessels that have been found in Cyprus of the same class, no other is known to bear the representation of a man, a bird, or a tree. Passing over the almost endless variety of terra-cotta relics of the island's own or of imported art,—all belonging to the earliest, or, at latest, to the first transitional period,—reference may be made to the *tetines* or sprinklers, in form of animals, which are very numerous, and believed by many writers to have taken the place of the infant's feeding-bottle, of modern times; others, however, believe they see in these objects lamp-feeders and perfume sprinklers. We may refer also to the many curious lantern-like objects with cylindrical bodies pierced with large holes and furnished with a doorway, which may be lamp-holders, or of use for keeping a small charcoal portable fire for warming the hands in winter. Allied to the tetines is a curious hydrostatic jug (fig. 14), having the usual orifice of the mouth closed, and finished off in form of a female's head with flowing plaits of hair. A tube is carried up from the

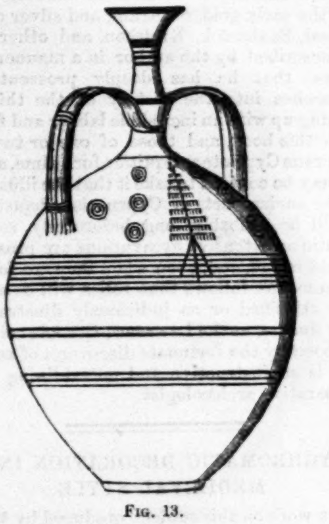


FIG. 13.

base, the vase requiring to be inverted when it was to be filled. A small spout is placed in the centre of the body, capable of dispensing a few drops of liquid perfume at will. The ornamentation, glaze, colour, and shape of this vessel clearly indicate a very high antiquity. The bizarre form of the *aryballi* and *unguentaria*, the numerous lamps, and the early gold, electrum, and silver coins of Azbaal, Baalmelek, Evelthon, and other kings, are described by the author in a manner which shows that he has deeply prosecuted his researches into the history of the things he has dug up with an incredible labour and fatigue. With this book, and those of one or two other writers on Cypriote antiquities, for a time, at least, we may be content to take it that the illustration of the ancient arts of Cyprus is exhausted, for it will be probably long before any very systematic or extensive excavations are prosecuted in that island, and, even when they are found, it by no means follows that relics will be so carefully classified or so judiciously illustrated by their finders, as the Lawrence-Cesnola collection has been by the fortunate discoverer of so much that is so instructive and entertaining to the comparative archæologist.

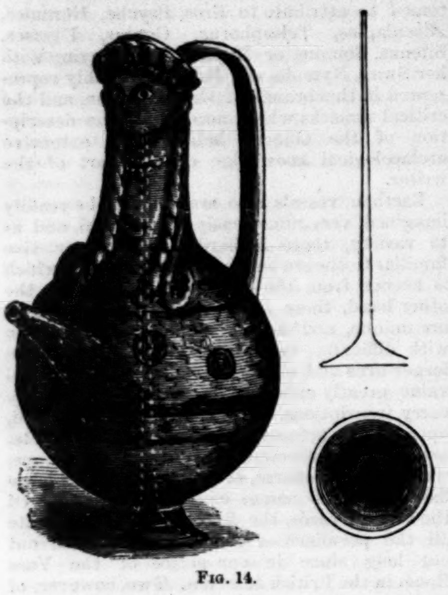


Fig. 14.

POLYCHROMATIC DECORATION IN THE MEDIÆVAL STYLE.

The work on this subject produced by Messrs. W. & G. Audsley* is a good one of its class; but it seems to us to have come out rather behind its time. There is now no longer any question made either as to the fact of an at least extensive application of colour to the interiors of Mediæval buildings, or as to the propriety of carrying out the same method of decoration, when circumstances admit of it, in modern buildings of the same type; the work has, in fact, to a great extent been done, and not a few churches have been decorated (and occasionally over-decorated) with very much the same style of colour and detail as that shown in the illustrations to the present work. Indeed, it may be questioned whether the taste shown in these illustrations, though very good in itself and from the author's point of view, will not be regarded by others of the decorative designers of the day as somewhat *passé*, having been superseded by the newly-developed taste for neo-Greek forms. Had the book appeared at the time when the coloured decoration of Gothic churches was a prominent subject of interest and of controversy, it would have passed muster as a very good contribution to the literature of the subject. It is not the worse in itself for not having appeared sooner; but now it is rather like offering people a lesson in what they already know.

The tone of the authors, however, is more reasonable and less uncompromising than it probably would have been if the book had been published, say, twenty years ago. For, at that time, when the fight about colour was in progress, those who stood up for colour-decoration were colour-mad, and would have sacrificed every architectural detail, in the way of carved work or moulding, to the chromatic powers. Imaginary restorations of churches were made, which were described as "a mass of colour," a "blaze of colour," and in other such somewhat exaggerated language; and, unfortunately, actual schemes of coloured decoration were carried out, which were of the most violent nature, and nearly ruined the effect of some of the Mediæval buildings to which they were applied. And, even in better examples, we have questioned whether the painting of mouldings, for instance, with strongly-marked colours, is not a weakening of their architectural effect from interfering with the contrast and gradation of light and shadow. It is quite certain that both effects,—those of colour and modelling,—cannot be combined in their highest degree; one must give way to the other. If we wish to preserve the effect of light and shadow on a modelled surface, we must content ourselves either with faint tones of colouring (which, however, can never be really effective from a colourist's point of view), or we must confine the application of colour to the fillets and such other flat portions of the mouldings, leaving the rounds and hollows to make their own effect of light and shadow. This way of applying colour as a part of architectural decoration, by only partly covering the actual surface of the wall, leaving it to be seen as the ground on which the colour design is elaborated, seems the most satisfactory way of combining the beauties both of coloured and of modelled architectural detail, and was the method, as we know, practised to a considerable extent by the Greeks. Messrs. Audsley do not seem to wish at all to put colour above architectural detail; on the contrary, they observe that a system of coloured decoration should be subordinate to the architectural lines of the building. They also remark upon the necessity of a flat treatment, and the avoidance of any shading producing the appearance of relief; but such cautions are now mere truisms, accepted by every one who has any sort of claim to meddle with decorative painting. It is, however, not so superfluous to observe that when a building is to be decorated extensively with colour, it should be designed with that view from the first, and would in some respects require very different treatment of detail from that in the case of a building in which colour was not to be applied. It is, we fear, still correct to say, as the authors do, that "this fact is too often overlooked"; which is not only injurious to the completed effect of the building, but unfair to the colourist who is to be subsequently called in to decorate it, and who possibly finds the details of the architecture and the arrangements of lighting and wall space very much at variance with his wishes. The mouldings in such a case should be profiled from the first with an eye to their effect when treated in colour, and the wall spaces arranged with the same view, and on the basis of a distinct general idea as to what the final effect is to be.

The accounts given of the processes of oil and tempera painting on walls, and the practical difficulties to be guarded against, appear to be taken from reliable sources; the most important portions of them are quotations, accompanied by references to further sources of information. The remarks upon the preparing of designs and transferring them to the walls of the building will be practically useful to those who want information on the subject; they are, however, mostly what would present themselves to any one who brought practical common sense and knowledge of geometrical drawing to the work.

The coloured plates form by far the most important portion of the book, and the best-executed. The authors give, in the first instance, a scale of colours most desirable and useful for Gothic decorative work; these are toned colours, avoiding all the so-called primaries, and not presenting even any strong or pure secondaries. The authors do not seem to contemplate banishing the strong colours altogether, but observe that in work in the Gothic style they should be used only in very small quantities, to heighten some point in the design. This dictum, however, does not apply any more to Mediæval than to other styles of work. The employment of primaries in small quantities only and to heighten the effect of brilliancy without introducing a mass of powerful colour, is as much a characteristic of Saracenic and Arabic design as of Gothic, but the subordinate colours in those styles are more brilliant than the subordinate colours in Gothic decoration. In spite of what is in this book said about Mediæval colouring, the fact is that the Mediæval artists occasionally showed the most crude use of strong colours in great masses,—rather in later than in early work, some of which have been restored, with questionable wisdom, in our own time. They are, however, as a general rule harmonious, and so are the colours and tones selected by the authors for their chromolithographic illustrations.

The designs are intended to present samples of various types of coloured ornament of the Mediæval school; some of them are original, others are from examples from illuminated MSS. and other sources. The first three or four plates are wall diapers based on the brick pattern idea, showing the division of the walls into oblong parallelograms suggesting masonry, and each filled in with some ornament which can be repeatedly stencilled. Some of the filling-in ornaments are a little too sinuous and naturalistic in tendency for their position. A wall-diaper based on these very square and precise forms rather requires all its details treated with a certain squareness and angularity, to be in keeping with the idea suggested by its main divisions. Diapers of more elaborate character follow, geometrical ones based on the lozenge or trellis form, and flowing designs based on geometrical repetition, but in which the geometric base is rather evaded than expressed. Some of these, though recalling forms that are familiar to us in Gothic work, are sufficiently original and very effective and well designed. The band ornaments on Plate XVII. are exceedingly graceful; and it may be observed that, though appearing quite in their place in a book of Gothic design, they have, nevertheless, a very close resemblance to Greek forms. The treatment of conventional architecture in flat colouring shown on Plates XXIV. to XXVII. is ingenious and effective; especially the manner in which the Gothic capital and crocket are translated into forms suitable to flat colouring. We do not too much recommend this kind of quasi-architectural painting as decoration; but if it is done, the drawings here given show very effectively the right principle and practice to be followed in doing it. The specimens of Mediæval alphabets given in the closing plates, partly original and partly worked out by the authors from Mediæval types, are very good, and are practically useful for a draughtsman to have by him. The publication generally would have figured as an admirable one at the time of the Gothic revival. The question is, as we have already hinted, whether it is not out of date now, and whether the present change in taste is not disposing the rising generation of architects to the study of other types of ornament. There may, however, still be a sufficient number of the younger generation clinging to the Gothic creed, and to such Messrs. Audsley's book may be recommended as useful for reference, or, as we sometimes hear it more frankly put, "good to crib from." The style of ornament illustrated in it is unquestionably a better and purer style than much which is practised by the neo-Renaissance designers of to-day; but it must be admitted that its capabilities have been a good deal drawn upon, and the industrious authors of the book before us do not present any new departure. If they had, we should have attached more importance to the publication, and have considered it more at length. But it only represents what has been done before, sometimes as well, sometimes not so well.

COMPOSITIONS AND DRAWINGS OF VIOLLET-LE-DUC.

It is satisfactory to see that the memory of so remarkable an architectural artist as Viollet-le-Duc is not without honour in his own country, in spite of his quarrels with and railleries against the official art-teaching of French schools. A collection of his drawings is being published under the sanction of a committee formed to secure proper credit and recognition for his labours, the first three numbers of which are now before us.* They are in process of publication in folio wrappers, in that curiously irregular method which seems natural to French publications, one of the wrappers containing the *première livraison*, the next containing the second and third; both wrappers containing a heterogeneous mixture of subjects, the perspective view of a design in one number, the details in another, and so on. The whole, when issued, will at this rate be a kind of chaos of drawings of all sorts, which the purchaser or subscriber may then, of course, sort for himself. But it certainly is odd that people who are such slaves to logical method in essays and reviews and such productions should show such a contempt for method in their way of publishing art illustrations.

---

* Polychromatic Decoration, as applied to Buildings in the Mediæval Styles. Thirty-six plates in colours and gold. By W. and G. Audsley, Fellows of the Royal Institute of British Architects. London: Henry Sotheran & Co. 1882.

* Compositions et Dessins de Viollet-le-Duc, publiées sous le Patronage du Comité de l'Œuvre du Maître. Paris: Morel & Co. In course of publication.

However, we must take things as we find them, and pick what we can out of the miscellaneous collection of Viollet-le-Duc's drawings vouchsafed to us; though there is no opportunity in the drawings we have so far for criticising or classifying Viollet-le-Duc's methods of working or the qualities of his design, which latter seem to vary very much. There has been a scepticism among a good many English architects as to whether the eminent Frenchman's designs were equal to his criticisms and theories and to his drawing. There is some little ground afforded for this scepticism in the contents of the portfolios before us. We see in all the specimens (the larger proportion of which are facsimiles) splendid drawing, the display of a power in using the pencil and brush which seemed to have been in itself, as it well might be, a source of pride and enjoyment to its possessor; and a remarkable readiness, freedom, and flow of ideas in regard to design: nothing done is commonplace, all the drawings show fertile invention and a certain power of style which cannot be denied or depreciated. But there is also discernible a want of refinement in details, and at times a failure to realise the essential features and feeling of the style adopted; for, in spite of Viollet-le-Duc's strictures, in various parts of his writings, against archæological architecture, it cannot be denied that the greater part of his own designs are archæological in their nature, and in many cases such departures from the precedent of Gothic style as he makes are hardly in the direction of improvements. In fact, the effect of his designs on paper is owing in some degree to the remarkable power and freedom of drawing which they display, and we should be prepared to find that some of them would hardly look so successful in execution as in representation. The first one we open on is a design for a gilt bronze lectern, drawn with the greatest spirit in a difficult perspective position. On a large spreading hemispherical boss below the stem of the lectern are worked the signs of the four evangelists in relief, each in the centre of a quatrefoil, and around the lower rim of this project heads, which we may presume to be those of the apostles. This is carried on a tripod forming the base of the whole, which tripod is not a very fortunate detail, and as a foot or supporter looks decidedly weak. The upper portion, already described, is both spirited and suitable. The stone carved balustrade of the chapel at Pierrefonds is a piece of pure Mediævalism, interesting not so much for the design, as because it is a facsimile of a working drawing. In the production of working sketches Viollet-le-Duc was wonderful. He used the brush largely, in some cases entirely, drawing the object straight off with it without any pencilling, shading it rapidly so as to convey the full idea as to how the object should look, and leaving the lights as he proceeded so as to produce the most charmingly free and effective representation. A figure of St. Michael, forming the apex of the spire of the château, is another capital specimen of a sketch for sculpture; this is for *repoussé* work in lead, and shows what a capacity Viollet-le-Duc had for sketching the figure, giving to the whole balance and pose an appropriate action, though the detail may be open to question; in this case, for instance, the hands of the figure are certainly too small. An engraving of his design for the choir-gates at Notre Dame, wrought-iron work, is very free in the flowing scrolls of the main design, which, though conventional in detail, twine about with almost the freedom of natural vegetation; but the springing of all the foliage from a kind of bunch or sheaf of stems in the lower angles of the gates is certainly awkward, and looks like a makeshift. This and other points we come across suggest the idea that the author of these designs did too much, and worked sometimes too fast, and without giving himself time to refine his details. The first number closes with the design for the west front of the Cathedral of Clermont-Ferrand. This is a very aspiring design in the thirteenth-century Gothic style, with two lofty towers, and very tall slated or leaden spires on them, and an immense rose-window as the principal feature in the centre portion; but, considering this as the work of the leading French architect of his day, it certainly indicates that the spirit of Mediæval architecture has not been caught and reproduced in France as it has been by some of our own leading architects. From the point of view of English criticism, this would be considered a thin and wiry piece of Gothic, very deficient in breadth and power and in the true spirit of Gothic; the main entrance especially is very feebly treated,—the more remarkable in a country where there are so many grand Mediæval portal designs.

The second portfolio contains several more metal designs, shown chiefly in facsimiles of working drawings. One of these, a detail drawing for parts of a bronze font in Notre Dame, is a capital specimen of Viollet-le-Duc's Indian ink brush studies of detail, remarkably free in execution, and very effective in design, though in this, and others in which natural forms are introduced, the author was somewhat too naturalistic, and at all events too indifferent to truth of curve in his artificial branches and foliage. He draws one portion with considerable purity of conventional curve, and then he lets an odd stem butt out at no curve at all, but as if it were a natural sprout. This would have horrified such a designer as Owen Jones, for example; and not without reason. If there is one thing primarily necessary in ornamental design it is that the leading lines and curves in it should be harmonious and thoughtfully considered from the beginning; and this, Viollet-le-Duc, in his desire for freedom, seems sometimes to have quite overlooked. In the details of an ambon at Notre Dame, there is a charming bit of brush detail for wood carving, in which freedom is combined with true line and excellent conventional treatment of foliage. The grille before the choir, in the Cathedral of Clermont-Ferrand, is an example of very pretty wrought-iron design in perfect taste, and entirely free from naturalism; so also is that from the Church of St. Denis, which is much bolder in style, and ought to be an exceedingly effective piece of work.

The perspective view of a "projet" for an Academy of Music is so far nearly the only piece of Classic work in the selections, and the only Classic design on at all a large scale by Viollet-le-Duc that we remember to have seen. It is Classic, it is true, "with a difference;" it is Classic treated in a manner of Viollet-le-Duc's own, but it rather disposes us to wish that he had turned his thoughts more to this school of architectural design. This is certainly a much more effective piece of architecture, in regard to detail, than the west front of the Gothic church named above. It is impossible to describe or define the peculiarities of detail without the drawing to refer the reader to. The general effect is that of Classic designed by an architect who is accustomed to group piers and shafts, &c., on a Gothic and not on a Classic principle. Two of the most interesting and valuable items in the collection are specimens of Viollet-le-Duc's beautifully neat, and at the same time effective and picturesque, pen-sketching. One of these is a view of Florence from San Miniato, reduced one-half in size, with an immense amount of detail of the distant city in it; the other, a drawing of the front of the quaint, heavy, Romanesque church at Surgères, a beautiful piece of architectural drawing with the free hand, in thin, clear lines, with sufficient touching to give a little effect to it without spoiling its architectural sharpness and accuracy. We commend this drawing to the attention of some of the gentlemen who pride themselves so much on their proficiency in the "scratchy" style of architectural sketching. Altogether this is a most interesting and suggestive collection of drawings, full of hints, and we hope there are a good many more "parts" to follow, and that buyers of them will be found in England.

Stoke Newington.—An estate, comprising rather more than four acres, has been let by tender by Mr. Banister Fletcher, to Messrs. Smith & Goodman, and the Court of Chancery having approved the terms, the roads are being made and the houses built. This will add about 120 houses to the great number now being erected around London.

GOUTHIÈRE, THE CHASER AND GILDER.

WE not long since had occasion in these columns to tell our readers something of the life and labours of "Boulle," the ingenious and talented cabinet-maker of Louis XIV.'s court, and whose works, though the world has been recently somewhat astonished to learn were of such excessive costliness, have never, within the last two centuries, failed to command a high commercial value among art-lovers. The same may be said of an artist of more recent times, perhaps even less known to the public at large, but who holds with collectors a position of scarcely less importance for the extremely choice and refined character of his productions,—Gouthière, the bronze-chaser of the end of the last century, some of whose creations in the Hamilton Palace sale have realised sums which, if they appear to the public capriciously exorbitant, scarcely exceed the amounts originally bestowed upon the artist by his wealthy patrons. Thousands of pounds for pieces of furniture, enriched with elaborately-chased bronze-gilt ornaments appear facts to be accounted for only by the familiar caprice of the collector. Such, however, is not entirely the case. There exist, to show us in the present day how work was paid for in the past, the original accounts, by which we see how the skilful artist was remunerated. Gouthière, of whom little personally is known, was largely employed in the extravagant reign of Louis XVI. by a nobility whose magnificence may be said to have often been more noticeable than their taste. Year by year he filled the sumptuous mansions of his patrons with his wonderful work. His powers, indeed, cannot be said to have been overlooked by his contemporaries, and among his warmest admirers was the royal favourite, Madame du Barry, from whom, somewhere about 1771, we have evidence that Gouthière received for work executed by him no less than 36,000 francs. The same year the artist assumed the title of "chaser and gilder to the king." The Du Barry's patronage of the young workman we still see continued in decorating her house at Versailles, and the still more wonderful *pavillon* which the frail favourite was setting up at Louveciennes, or Luciennes, as it is termed, at a cost which, even for the extravagance of the close of the last century, astounded the public.

Some slight idea may be formed of the sumptuous taste of this lady (who, like most of the royal favourites in France,—like Diane de Poitiers and the Pompadour,—was a passionate lover of art), when we gather from her bank account a few of the items of her expenditure: For goldsmith work and jewelry, 2,280,763 *livres* (francs); for furniture, pictures, and vases, 115,918 francs; for painters, carvers, gilders, &c., 370,108 francs; the bill of Cagny, the carver and gilder, alone is 90,955 francs; and the gilding of one bed is set down at 5,945 francs. The total comes to hard on 6,500,000 francs.[*] The Du Barry,—of whom a cynical contemporary remarked that she spent more than the mistresses of ten kings united,—cost the nation, it has been calculated, considerably over 10,000,000 or 11,000,000 francs. When, in in 1791, her diamonds were stolen,—it can be imagined what a talk there was at the time,—they were valued at more than a million and a half; the *commode* in which they had been kept,—a gem in itself, delicately ornamented with inlaid Sèvres porcelain,—was alone worth 80,000 francs. Sums such as these given by the Faubourg Saint Germain were not uncommon in the days that preceded the Revolution, when the Faubourg Saint Antoine was starving. The king is known to have paid the queen's cabinet-maker, Rœntgen, of Neuwied, no less than 80,000 *livres* for a marquetry and bronze-decorated sécretaire, to be placed in his study. When it is remembered how far more valuable money was in those days, say about four times its present purchasing power, perhaps the sums given of late, and which have been pronounced so exorbitant, may appear more reasonable.

Gouthière as an artist is as much the creation of this period of luxurious and refined expenditure as was the Du Barry herself, who in her *pavillon* at Luciennes found more than ample work for the king's chaser and gilder. In the memorandum of the architect Le Doux the entries against Gouthière's name for work executed by him are constant, and some picture can be formed of the bower of the Du Barry by the items mentioned, when we find Gouthière's expenses for the bronze chasings used in the *pavillon* amounting to 81,739 livres (the oval salon is set down at 31,272 livres, the *salon carré* at 19,706 livres).

---

[*] Baron Davillier, "Le Cabinet du Duc d'Aumont," &c. Paris. 1870. 8vo.

As those in any way familiar with Gouthière's work know, it is not as a designer in the great style that he excelled; it is essentially to the details that he devoted his talent; minute medallions, and delicately-chased wreaths of flowers adorning cabinets and other pieces of furniture, the details of chimney-pieces, cornices, door-handles, &c. The fame of Madame Du Barry's *pavillon* decorated in such style as this can be understood. "It would be impossible to see," remarks a Paris guide-book of the beginning of this century, speaking of the departed glories of Luciennes, "anything more precious or more finished than this bronze work of Gouthière's."

Though not long after commencing this marvel Madame du Barry lost her royal lover, she was not, it would appear, prevented from continuing the decoration, as we should call it, of her home at Luciennes, which Madame Vigée-Lebrun, the witty lady painter of the last century, has spoken of with such admiration, having visited the hostess. "Every day,"—we quote from the English translation which appeared not long since of the lady's charming "Souvenirs,"—"we took our coffee after dinner in the Pavilion, so renowned for the taste and richness of the ornamentation. The first time I saw it Madame du Barri said, 'It was in this saloon that Louis XV. did me the honour to dine; above it there was a tribune for the musicians and singers who played and sang during the repast.' It was a delightful saloon, the view was splendid, and the chimney-pieces and doors were of the most elaborate workmanship; the locks were masterpieces in their way, and the furniture was of a richness and elegance beyond description." In spite of the growing seriousness of political affairs, up to within almost a few months of her execution Madame du Barry appears to have continued to employ Gouthière in the extravagant decoration of her pavilion at Luciennes. A short time after the death of the poor lady, in accordance with the custom in such cases, the authorities inventoried all her confiscated property; some few objects escaped, among them may be mentioned the familiar picture of the "Cruche cassée," by Greuze, now in the Louvre Museum; the rest were either destroyed or stolen. During many years, it would seem, Gouthière had not received any remuneration for his work, and we accordingly find him after the sale putting in a claim for the sum due to him, amounting in all to the modest figure of 756,000 livres (!). In vain he represented the years of labour he had expended on Madame du Barry's house, and the extreme costliness of the work he had executed for her; the chasing of one pedestal and some accessories he valued at 50,000 francs, the mounting at 46,000 francs, the gilding at 63,000 francs; three other pedestals he sets down at 420,000 francs. Though the poor artist consented to reduce his claim to 640,000 francs he received not the slightest remuneration. Many years after, in 1836, Gouthière's son revived the claim against the heirs of the Du Barry, and after considerable litigation received but 32,600 francs.

Like his patrons, the worthy old chaser may be said to have been ruined by the Revolution. A few years after his failure to receive any answer to his claim against the Du Barry estate, he made a fresh appeal, but again without success, and in 1806 we find the old artist, the favourite of princes and the aristocracy, dying in positive want, in the workhouse. In the ruin and dispersion of his patron's property, the delicate marvels of design and manipulative skill with which he had enriched their homes were, like so many other artistic treasures, scattered to the four corners of the earth. Scarcely less terrible than the destruction of life during the wild early days of the Revolution were the wanton and wholesale dispersion and annihilation of the property of the aristocracy. In such times, when dear life was in peril, it can be understood that little but their jewelry could be carried away by the *émigrés* who fled from their country to England, to Italy, and to Germany. What remained behind in their stately town mansions and old country châteaux was confiscated by the revolutionary Government, in many cases totally destroyed or disposed of, to swell the public funds. When the palace of the Tuileries was sacked, on the night of August 10th, the furniture was thrown out of the windows by the infuriated mob, and at Versailles nearly every piece of movable property was sold to the dealers. A Government commission inventoried all the objects of value and arranged for their sale. Interesting indeed must have been these auctions, when the property of "le nommé Louis Stanislas Capet" (as the king was tersely styled by the authorities) came to the hammer, or a few days later the contents of the wonderful house of "La femme Du Barry," or "La femme Victoire Capet," &c., as the various members of the royal family were termed.

The inventories of the period, the sanguinary 1793, make constant mention* of such and such articles "to be destroyed," "to be burnt 158 feudal pictures,—*tableaux de féodalité*,—meriting neither description nor estimation." Sale after sale took place, pictures, tapestries, furniture, bronze, marble, and china literally choked,—we have evidence to show,—the shops of the pettiest dealers in Paris. In the midst of such political excitement as then reigned, it can be understood that few of these treasures remained in France. The emissaries of our country and of Russia were especially active, and carried off almost everything of value. It is easy to see how many of the homes of our wealthy nobility were enriched with the spoils of unhappy France. Hamilton Palace owed some of its choicest treasures to the French Revolution. Among these, the works of Gouthière have always held, in the gatherings of the Duke of Hamilton, a high place, not alone because more than one of the pieces of furniture which the bronze gilt chasings, by Gouthière, so delicately adorn, once belonged to the unfortunate Marie Antoinette, but because they are known to be positively unique creations of an art which is perfect in its kind. Gouthière may be regarded as (he at least so called himself) the inventor of mat gilding, *dorure au mat*, and the story goes that one day Marie Antoinette mistook for a work in gold, a rose of chased bronze gilt, presented to her by Gouthière. The delicate and refined richness of his designs,—for though he sometimes followed the designs of others, he was an artist himself,—may be said to have no equal, and when he united his skill with that of the Chinese in their choice old lacquer-work, it can be understood how beautiful is the result of the contrast of the richly-chased bronze and the black lacquer, and how highly the work is appreciated. His touch is one that once seen can scarcely be mistaken, and though he had not a few imitators, he may fairly be said never to have had a successor. Germain and Auguste, as bronze chasers, are known among many other contemporaries. Martincourt, Gouthière's master, is another bronze chaser of the reign of Louis Seize; and Philippe Caffieri, who, though he may be said to belong rather to Louis XV., died when the marked style of that reign had been succeeded by the more classic symplicity that is usually associated with the succeeding period,—a simplicity which, it may be remarked, commenced to assert its reaction against the *rococo* under the double action of the refined Mdme. de Pompadour and the discovery of Pompeii and Herculaneum, ten or fifteen years previously to the accession of Louis XVI. There was, however, as may be imagined, a large body of bronze and metal chasers in Paris actively employed in the last century,—decorators of the furniture, mounters of the porphyry and agate vases, the jasper and granite tables with which the French delighted to decorate their apartments. The traditions of the art were continued when the disturbances of the Revolution were over; and the gilt bronzes of the "Empire," meagre as may be their artistic merit, will be found to retain all the honesty and solidity of workmanship which distinguished the older chasers and gilders who, not content with gilding their bronze work, almost invariably overgilt their gilding, *dorure* and *sur-dorure* being an item often noticed in their account.

Gouthière, like Boulle, like our own Chippendale, and like so many other artistic workmen, merit a higher place in the esteem of the public than they at present occupy. They are the true little masters of art, with whose skill it is the duty of our museums and our art-publications to make us all acquainted. There is a want of such sturdy workmen in the present day; the traditions in which they acquired their skill, and which they handed down to their successors, have been allowed to decline, and without an emulating acquaintance with their struggles and their creations, we can ill hope to rival their industrious and modest careers.

SEVENTEENTH-CENTURY IRONWORK.

In connexion with a visit paid by the Architectural Association to the collection of ancient works in wrought iron brought together by Messrs. Gardner, of West Strand, a paper on "The Art of the Blacksmith" was read by Mr. G. H. Birch. We print the latter portion of it:—

During the fifteenth and sixteenth centuries the prominence hitherto given to the hinge sensibly declined. Partly from the reason that it had become the fashion to make more of the wood-work, and to enrich it with carving or moulding, the hinge now played a very secondary part, and in some cases it was simply a band of metal passing behind the perpendicular mouldings of the door, and terminating in a *fleur-de-lis*, but the door was also thickly studded with nail-heads. In the screen work and grilles of this period of the fifteenth century a like decadence was manifest. The tombs of the great still required grilles to protect them, but the designs of these were generally stiff and poor. The screen of Henry V.'s chantry at Westminster is typical of this, and its very proximity to the grille of Queen Eleanor's tomb makes the decadence the more apparent. But while the hinge and grille decreased in beauty, more attention was paid to locks, fastenings, and door-handles, many of these being very beautiful. There is a very excellent example of a lock at Ely Cathedral, and at Beddington Hall, near Croydon, and in many other places. The railings round the tombs of Edward the Black Prince, Canterbury Cathedral, and Henry IV., and that round the tomb of Simon de Langham, Archbishop of Canterbury, in the Chapel of St. Benedict, Westminster Abbey,—very similar to the two first-mentioned tombs,—make up in strength what they lack in beauty, and seem to have been the prototypes of those miles and miles of iron railings with which we are so familiar in London.

At Arundel Church, Sussex, there is a light and graceful iron grille in the blocked chancel arch: the design consists of upright standards and cross bars, and small cusped arching between, and a battlemented cornice enriched with alternate roses and lions' heads. It is much to be regretted that the full beauty of this elegant grille cannot be properly appreciated in consequence of the ugly brick wall which the Duke of Norfolk has caused to be built immediately behind it, in order to enforce his legal rights to the chancel. The very existence of this grille testifies that whatever those legal rights may be, the parishioners, although debarred the use of the chancel, were certainly not debarred the sight of it through this grille, nor was the effect of a beautiful interior ruined by such an act of vandalism, worthy of the worst days of those Puritans who divided Exeter Cathedral with a brick wall between the nave and choir. Extremes very often meet.

In Germany the open grilles of this period were of excellent design and workmanship. One very common form which they assumed was that of a cross-barred grille with a delicate pattern, occurring at intervals, of a cusped form; sometimes the bars were set diagonally, and there is an infinite variety of form of grille throughout Germany. Louvain, in the Church of St. Peter, has some excellent examples, and in the same church is an aumbry with simple but finely-designed hinges, lock plates, and handles. These aumbries, of which there are a great many in Belgium and Germany, deserve a very close inspection, in consequence of the extreme beauty of their metal work. In South Kensington Museum there is a very perfect carved oak one, called German, but more properly Flemish. The metal work on this is very original. In England we have but few examples, but there is a very good one in the Church of St. Mary, Richmond, Yorkshire. Nuremburg and Augsburg were the two chief places where this art was carried on. These two cities were then at the zenith of their prosperity, and their trade uninjured by those devastating wars which reduced them to misery, and from which Augsburg at least never fully recovered.

There is one particular phase of the smith's art in England which deserves more than a passing notice. The great impetus given to the industrial arts by the universal rebuilding which took place after the Great Fire of London exercised a considerable influence on the art of the smith; and there is the peculiarity attaching to the revival that the productions are essentially English, and are, unlike the contemporary work on the Continent, preserving an individuality prefectly marked and distinct. One might almost call it a "school," and it lasted for nearly a hundred years.

---

* Baron Davillier, "Vente du Cabinet du Duc d'Aumont." Paris. 1870.

St. Paul's Cathedral, which was commenced in 1675, and the choir so far completed that it was opened for service in 1697, possesses some of the finest specimens of this date in the grilles and gates enclosing the choir, and although one is bound to confess that it was to a foreigner and not to a native artist that these are due, yet in many particulars they resemble genuine English work. One has but to compare these gates with others of the same date in France, to directly see the immense difference between them, as in the enclosures of the choir of the Abbey Church of St. Ouen, at Rouen, and at the Cathedral at Amiens. The artist's name was Tijau or Tijou, for the orthography is doubtful. In addition to these large gates, the original positions of which have been altered since the re-arrangement of the cathedral, there are several smaller grilles in some of the openings, and escutcheons to some of the internal gates with the arms of the dean and chapter very beautifully worked into the design. The whole of the ironwork at St. Paul's deserves a close inspection. The outer railings, which are partly cast, are of Sussex iron, and were made at Lamberhurst.

Most of the City churches have very good ironwork, especially in the sword-rests and communion-rails, some of the finest of the former being at All Hallows Barking, St. Andrew Undershaft, and St. Mary-at-Hill, and the latter at St. Mary Woolnoth. The altars of some of these City churches are marble slabs, supported on a frame of wrought-iron work. In the Church of St. Michael, Queenhithe, now destroyed, there was a very curious iron bracket,* with pulley and chain for the font cover, and some wrought-iron hat-rails. Though the hinges and locks of these churches are not remarkable, many of the vanes are curious. St. Lawrence Jewry, has a gridiron, in allusion to the martyrdom of the saint. St. Mildred Poultry, and St. Michael, Queenhithe, both destroyed, bore ships in full sail, St. Peter's, Cornhill, the cross keys, St. Mary-le-Bow has a flying dragon, and St. Antholin, Budge-row, had a very fine vane surmounted by a crown. The destruction of this church and spire, one of the most beautiful in the City, will ever be a lasting disgrace to those who brought it about. In the Church of St. Dionis Backchurch, at the west end, supporting the organ-gallery, stood square columns of open work, of wrought iron, and with very nicely wrought caps, but this church has also been destroyed, and the pillars probably sold for old iron.† Some of the brass chandeliers, where they have not been made away with, to be replaced by gas standards or brackets, are suspended by ironwork more or less ornamented and gilded, a good specimen having existed at the Church of St. Catherine Cree,‡ and there is still one remaining at St. Saviour's, Southwark. At St. Alban's, Wood-street, a curious hour-glass is preserved in a wrought-iron frame, a relic of Puritan times, and though hour-glasses and their stands are not uncommon, it is a comparative rarity when found in a church of the date of St. Alban's, Wood-street.

The smith also found plenty of occupation in making railings and gates for public bodies and for private houses, and wrought-iron handrails to staircases.

One of the most beautiful specimens of the art of the seventeenth century, is to be seen in a pair of gates at the end of a passage or hall in the building occupied by the managers and trustees of the Bridewell Hospital, Bridge-street, Blackfriars; the wrought leaves and scrolls are very rich, being designed for internal work, and date from very soon after the Fire of London.

The honourable and learned societies of Gray's Inn and the Inner Temple have fine scroll entrance-gates to their respective gardens; and scattered about in the suburbs, at Clapham, Chelsea, Fulham, Stoke Newington, Stratford-by-Bow, and Hampstead, are fine entrance-gates, whose designs are doubtless very familiar, since there is scarcely an old brick mansion with red tiled roof and dormer windows and walled garden that does not possess them. There is considerable beauty about these gates, and the manner in which the upright standards are alternated with panels of scroll-work, and the upper part enriched with scrolls and leaves and the initials of the owner, or his arms, worked in; some of this work, indeed, being very delicate and refined, especially with regard to the foliage. But the chief glory of the English school of this date is the wonderful work upon the gates now preserved at Kensington Museum, formerly adorning the gardens at Hampton Court Palace, and the work of Huntingdon Shaw. These are far superior to the gates in St. Paul's Cathedral, for the latter are a little too architectural in their treatment, Corinthian pilasters being freely introduced, while these Hampton Court ones are free from any approach to architectural forms in iron, and rely for effect entirely upon the bold curves and sweeps of the scrolls, the richness of the acanthus-like foliage, and the delicacy of the centre medallions. The wreaths, which are suspended from the top, are wonderfully modelled, some of the flowers introduced being almost as delicate as the natural ones they represent, or rather reproduce, in iron,—one medallion in particular, representing the rose of England, surrounded by small buds and leaves, being truly exquisite. At the top of each of the gates are some fine masks, in some cases surrounded by foliage, and each gate is different in design, although they resemble one another in general form. South Kensington Museum possesses six of these gates, one with a rose, another with a thistle,—this last one is superbly modelled, the peculiarity and bend of the leaf being accurately rendered, —another has the harp of Ireland, but with strings rent and broken, emblematical of the present state of that unhappy country, and three have the initials of William of Orange and Mary Stuart. If William's name in these days may not be quite so popular as it once was, and if he did but little for the country over which he was called to govern by a dominant party, at least he was the means of calling into existence these exquisite works of art, which hold their own against any foreign production, and placed the smith, Huntingdon Shaw, foremost among those who, working with stalwart arm, with anvil and hammer, were able to throw life and energy into the dull mass of metal before them.

In the staircase of a house in Lincoln's-inn Fields, No. 35, there is a wonderful specimen of a wrought-iron staircase rail. At present this wrought work terminates at the first floor, but there is evidence of it having been continued to the second floor, a panel having been once sold at Christy's for 40*l*., which purported to have come from No. 35, Lincoln's-inn Fields, and had been removed in consequence of extensive alterations in the interior. The rail is composed of separate standards with scrolls and leaves, until it reaches the landing, which sweeps round a circular well-hole; round this the standards cease, and are replaced by an extraordinarily fine panel, in which one can recognise the same hand as in the Hampton Court gates; there is the same wonderfully modelled mask with foliage proceeding from it, the same sort of wreath depending in advance of the other work, the rich acanthus foliage partly masking the boldly-designed scrolls beneath, betraying the hand of Huntingdon Shaw or his school. The date would also fit, for this house and the next are traditionally supposed to have been designed by Christopher Wren, for the Solicitor and Attorney Generals about 1695-96, the date of the Hampton Court work. The centre oval medallion of this panel has unfortunately gone, and is replaced by some initials in cast iron, but it probably contained some of those beautifully modelled bunches of flowers which appear on the Hampton Court Gates.

There are many of these wrought-iron handrails in houses of the seventeenth and eighteenth centuries in London, and at No. 46, in the same square, is a simple but well-designed one.

At No. 5, Bloomsbury-square, the house in which, there can be very little doubt, the elder Disraeli lived, though it has been re-numbered, and standing at the south-west corner of the square and Hart-street, there is still a very fine wrought-iron hand-rail, which stops at the first floor, the principal staircase originally not ascending higher, but a secondary one having been used, and the design consists of a series of scroll standards, in which there are two sorts of foliage used, the lower portion having the acanthus foliage, and the upper part branching out into sprigs of foliage not unlike oak-leaves, and with delicate tendrils interspersed; the lower part of the scroll terminates in the centre with a wrought rosette of five leaves starting from a small central boss, the handrail which it supports being of wood.

Before leaving the locality of Lincoln's Inn Fields, so rich in historical associations of the past two centuries and a half, it will not be perhaps out of place to mention one fact that may not be generally known, with regard to Ancaster, or, to adopt its more correct name, Lindsay House. The most casual observer must have remarked two extraordinary tall red brick piers surmounted by mouldering Portland stone vases in the centre of the west side, and have been struck by the air of departed grandeur with which they are invested: these two giants are the survivors of six, four of which have disappeared, for between the present two in the front were two others, now gone, and two more stood at the sides enclosing the fore-court in front of the house. Between these red brick piers was once some very beautiful ironwork, both curious and quaint, but when it disappeared we know not, nor whither it went, though we know it was there at the commencement of the eighteenth century, and those who are familiar with views of old houses in London will remember that a similar railing existed at Powys House, not the one now called Newcastle House, at the corner of Great Queen-street, but the Powys House in Great Ormond-street, long since pulled down.

Many of the railings in front of old houses in London still show how artistic the smith's work was in these useful protections, before the everlasting spear-head became so universal. The very locality just mentioned, Great Ormond-street, has a very fine example, on the north side, of what the blacksmith in the seventeenth century considered necessary for an area railing, and this, to the credit of those to whom the property belongs, seems not only appreciated, but thoroughly taken care of. *Oh si sic omnes!* Lord Carrington's House, in Whitehall, has a very beautiful railing, with the old extinguishers for the links still attached; these may still be seen in many of our West-end streets and squares, and even in Bedford-row, a once fashionable locality.

There is also another point worthy of observation about these railings: where they return against the hall-door, on either side is placed a very beautifully-designed piece of ironwork, technically called a ramp. In Buckingham-street, Strand, and in many other streets in London, these are still to be seen.

These seem to have been the last expiring efforts of the smith. Birmingham was beginning to assert itself, and cast iron was to reign triumphant, and spear-heads, and spear-heads only, were to be the order of the day One can point to almost the last effort made, and that is to be found in the railings or low screen in front of Somerset House in the Strand; there is an individuality about this, and a freshness of design, so thoroughly original, which will repay any one who will but stop and examine it. The thought must occur to every one who ever takes the trouble to think, that, supposing the material hitherto seemingly so inexhaustible, was to become scarce, and that the iron mines, like the coal ones, were to show signs of diminution, what an immense mass of material we could fall back upon in London only; for, take an ordinary street, and behold how iron has been wasted.

Happily for our times, we do now appreciate the smith's art, and we still have workers amongst us whose right hands have not lost their cunning. We have but to look around on these walls, covered with the wonderful achievements of past ages, and of different countries, and to note that among them are placed specimens of modern skill, which show that the lessons taught by these ancient examples have not been thrown away, and that there is a future for the art of the smith, and that the nineteenth century, an era which has been called "a servile age of mere copyism without any real art of its own," may prove a turning-point in the history of wrought iron, by utilising its capabilities, and adapting them to the requirements of the age in which we live.

---

* Now in the possession of Messrs. Gardner.

† These were fortunately not destroyed, and are in the possession of Messrs. Trollope.

‡ In the possession of Mr. Shoppee.

THE CUSTOM OF HIRING FURNITURE.

OUR readers know very well that we have never confined our articles in any narrow spirit to mere technical questions connected with the erection of buildings, and we feel that so many of our readers have to do with the furnishing of houses that some remarks on the custom of hiring furniture may not be out of place here. In this instance we may strictly call this a custom, because it is a practice widely known and widely made use of. It is not a mere fluctuating practice, but it is a system employed by nearly every furniture dealer in the country. As we have more than once had to remark, the tendency among professional men, such as builders and architects, is to regard a practice which is by no means universal, and is only employed by some firms, as a custom, whereas, when this so-called custom comes to be legally criticised, it is found not to be a binding legal custom at all. But the practice of hiring furniture is now so universally known and adopted that it has recently been declared by the Court of Appeal (see Crawcour *v.* Salter, 51 *Law Journal*, Chancery Div., 498) to be one of which a court of law is bound to take judicial notice.

This decision was given in the course of last year; in the year 1875 the same question came also before the Court of Appeal, and then this tribunal considered that the custom at that time was not so well established that it ought to be taken judicial notice of. The Bench considered, however, that since that time the custom had become so common a practice that the previous decision of the Court could no longer be upheld. No better example could be found of the way in which mercantile practices can ultimately, if they are sufficiently vigorous, mould and change the municipal law, and equally also it shows how easily judge-made law accommodates itself to the social desires of the community. One of the chief results of the judicial recognition of this custom should not be forgotten by those who have to do with business matters. As a general rule, property in the apparent possession of a man who becomes bankrupt falls to the assignee as the representative of the creditors; for it is, legally speaking, in the order and disposition of the bankrupt. The effect of the judicial recognition of the custom of hiring furniture is to make this well-known legal rule inapplicable under these circumstances, and it negatives it, since, as Lord Justice James pointed out, "the foundation of the rule is to prevent a man from obtaining false credit by the possession of the goods." The long and short of the decision, therefore, is that the mere fact of furniture being seen in a house must not be taken to give rise to any presumption that it belongs to the houseowner. In both the cases out of which this question has arisen the bankrupt was an hotel-proprietor, but we confess we see no reason why the rule, if it applies to hotel-keepers, does not apply to every other householder; nor, indeed, did the Court apparently intend that it should be so confined. Therefore, it is perfectly clear that those who give credit to persons on the strength of a well-furnished house, do so at considerable peril. Further, as the furniture-dealer has never parted with his property in his furniture, and so, on the bankruptcy of the houseowner, can take it back, it is obvious that the legal view of the practice of hiring furniture is one which must help to extend the custom.

While it is, of course, in many cases no small convenience, it is clear that such a custom is, if very extensive, morally a bad one. It enables men to live on credit, to keep up appearances of a better position than they are entitled to, and it tends to relax rather than strengthen the valuable habit of quick ready-money transactions. A man, indeed, may now buy a plot of land, and yet, in reality, if he mortgage it he can scarcely be said to do more than hold it on credit; he may build a house on it and get money advanced upon the completed structure, and so pay for it by other people's money, and he may now without difficulty have it handsomely furnished, and yet not possess as his own a single arm-chair. We confess this is not a very satisfactory picture, and, judging from the universality of the last practice it is becoming more common than was formerly the case. Nor, again, can we believe that this custom is one which is good, either from the artistic or the business point of view. The hirer of furniture in the end undoubtedly pays more for it than if he pays for it at once, and the profit does not go into the workman's pocket. The quality of furniture for the hirer can never be so good as that which is prepared for the bonâ-fide purchaser. We refuse, too, to believe that the ordinary hirer of furniture can be as particular in matters of taste as the man who buys it at once, for, as we have said, the best articles are not likely to be let out for hire. Therefore, the tendency of the custom must, if it have a tendency, be against the elevating of household taste, and tend to its deterioration. But be that as it may, the legal effect of the custom is one of some importance, nor can its consequences, in other respects, he considered very satisfactory.

THE EASTWARD PASSAGE OF THE THAMES.

THE morning newspapers during the past week have contained numerous letters on the subject of the passage from the north to the south bank of the Thames, the greater part of the comments of which were anticipated in our remarks on the subject (p. 44, *ante*). One letter, however, was not so anticipated. It is from the pen of an engineer who certainly yields to no living man in the knowledge of the locality, regarded from the surveyor's point of view, and whose unbiassed opinion is entitled to the greatest respect. Mr. P. W. Barlow puts in a demurrer. So far from taking it for granted that a great traffic naturally exists, which is throttled for want of means of conveyance, he boldly denies that statement. The traffic from the north to the south bank of the Thames, he says, "is a mere ghost." Its non-reality is proved by the failure of the successive attempts to provide for its conveyance. It must be admitted that Mr. Barlow has a strong *primâ facie* case. We have all, possibly, taken this need too much for granted, forgetting that, as a rule, in England of all places in the world, things that are much wanted are apt to get themselves done.

Now we should not forget that a work which was at one time not undeservedly regarded as one of the wonders of the world was carried out by Sir Marc Brunel for the very purpose of connecting the north and the south banks of the river. This unprecedented undertaking was completed at a cost of 1,137*l*. a yard, or 454,000*l*. It was opened to the public in 1843. It is said, and said truly, that the want of approaches checked the development of the carriage traffic; but had this need for a crossing been so great as it is now, and as it was then said to be, can there be any doubt that the fact would have been indicated by a steadily-increasing flow of passengers? The uncertain part of the work was over; the risk was measured and overcome. The completion of the approaches was matter of money alone; and if the traffic had demanded the completion, we can hardly doubt that the money would have been forthcoming.

Many things, certainly, point in the direction indicated by Mr. Barlow. A good reason may perhaps be invented for the failure of previous efforts to do what we are now told is necessary; but the fact remains that they did fail. The first and famous tunnel was blocked for want of approaches. The second and minor tunnel, the sharp and rapid execution of which reflects so much honour on Mr. Barlow, is forgotten. Never did it attract traffic. Its situation was, apparently, admirable; but there was no demand for its services. In the same way the steam ferry has dropped out of sight. No one hears of it,—no one seems to use it. We are told that it is not suitable for the special traffic of the Thames. Why so? If people came forward to say, "Every step that has been taken with a view to link together the river banks has been a success. Each new line of communication has been pressed upon in such a way as to show that it is worth while to complete the best line practicable," then the question would rightly press for decision "What is the best method to employ?" As it is, Mr. Barlow's remark recalls that of the boy in Andersen's well-known tale of "The Emperor's Clothes." "But he has no clothes on," said the boy, and the people had to confess that he was right. "But there is no demand for means of transport," says Mr. Barlow. It is possible that he is not right. But it looks very much as if he were. Of all things, let us not be so inconsiderate as to not find out the truth of the secret thus whispered until after spending some couple of millions on a bridge.

Since we wrote these lines, we have read Sir J. W. Bazalgette's reply to Mr. Barlow. The statement of the engineer to the Metropolitan Board as to the number and position of existing bridges, is, of course, correct. It is not clear to what Sir J. Bazalgette refers when he says, "the locality is bad." Our preceding remarks as to the approaches to the Thames tunnel agree with those of the latter. But the argument as to the ferry does not seem to us to establish the case for a bridge. If the East London Railway now takes away the foot-passengers from the ferry, what need for further accommodation for them. And, it seems to us that the existence of a large traffic over a ferry would be not only an argument, but an argument *sine quâ non*, in favour of either widening London Bridge or making a new bridge.

The truth is, that it is rarely the case that any attempt to divert traffic from its natural channel has answered. Make the channel more convenient (as in the case of removing the toll from Waterloo Bridge), and the traffic increases. Make a new road for it, and, ten to one, it remains unused. For eight hundred years traffic has converged from either bank of the river towards London Bridge. Three attempts to divert it to a point lower down have failed. We do not say that a fourth attempt must fail. But, at all events, we require some much more definite proof to the contrary than has as yet been offered before we can consent to the experimental outlay of a million or more of money to accommodate a non-existent traffic.

THE ROYAL PRUSSIAN ACADEMY OF ARCHITECTURE ON FIRES IN THEATRES.

WE mentioned some months ago in these columns that the Berlin Academy of Architecture had been requested by the Prussian Government to deliver its formal and detailed opinion on the best means of securing theatres against dangers from fire. The terrible calamity at Nice, followed by the still more ghastly catastrophe at the Ring Theatre, Vienna, had directed the attention of architects in Germany as well as in all other civilised European countries to this subject. A special committee of the Rhenish and Westphalian Union of Fire Brigades had, soon after the Nice disaster, submitted direct representations on the question to Prince Bismarck, and had taken occasion to state that in their view the dangers from fire in theatres might be reduced to a minimum by improved designs and better methods of construction being introduced in the theatre buildings themselves. The German Chancellor requested the Prussian Ministers of the Interior and of Public Works to order an inquiry into the matter, and this they did by placing the entire investigation in the hands of the Royal Academy of Architecture. The first result of the deliberations of this body, dated November 2, 1881, has already appeared in the columns of the *Builder*. The conclusion of the Academy's labours, containing practical suggestions for improving the safety of theatres and other public buildings, has now appeared. It is entitled "Supplement of June 14, 1882, to the Opinion of the Royal Academy of Architecture, dated November 2, 1881." Of this document, which consists of two very unequal parts, entitled "Security against Fire" and "Protective Measures," we subjoin the following translation:—

A. SECURITY AGAINST FIRE.

1. Danger from fire in theatres is attributable chiefly to the employment, in the fittings and furniture of the auditorium, of materials that are easily inflammable, and which, after being kindled, burn rapidly, and propagate the fire quickly. This is more especially the case under a method

2. Of illumination which develops a great amount of heat, and produces hot gases of combustion, the effect being that as the latter rise to the ceiling, they render still drier and more inflammable whatever easily inflammable objects they may come in contact with on the way.

3. Complete security against fire can only be attained either by removing or avoiding the employment of combustible materials, or by avoiding a method of illumination by "open lights," and substituting for them a system of illumination with lights that are enclosed as far as possible in an air-tight manner.

4. The magnitude of the danger from fire, of course, increases in proportion to the quantity of easily inflammable materials or objects, and to the number of the gas-flames or open lights. The peril accordingly increases in proportion to the size of the stage. And in case of an outbreak of fire, the danger to the audience increases in proportion to the number of spectators, or to the extent to which the auditorium is filled by them.

Hence, the larger a theatre is, the more urgent the necessity of its being built and fitted fireproof, in order to obviate the dangers in question.

In the case of small theatres having only pit or ground-floor seats, or at most only one gallery in addition, likewise in the case of dancing-halls or ball-rooms with a stage annexed,—buildings from which the public as well as the performers can quickly escape if fire breaks out,—the rigour of the conditions which such buildings should be required to satisfy in point of materials and style of structure, may be proportionately reduced.

Remarks on Sec. 1. The question how far combustible materials can be replaced by incombustible in the structure and fitting up of the stage of theatres without injuring or impeding the business of the stage, can only be settled by further experiments and by the test of stage practice itself. Attention, however, requires to be unintermittently directed to the question of the substitution of less dangerous materials for those now in use, and as experience discovers them, their employment ought to be ordered in place of what is less safe. Certain improvements, however, may be mentioned, the adoption of which has already been distinctly shown to be practicable without material difficulty. Thus in all permanent theatres, both on the stage and in the roof, the following parts ought to be constructed of iron, viz., all stairs or steps, scaffoldings, internal structures, pulling ropes, all fixed parts in the construction, the curtain frames and other framework, stands, &c. The same applies to the parts underneath the stage. These latter, moreover, ought to be provided with fire-proof beams and supports on which to rest the flooring of the stage.

All objects of wood and all textile fabrics used on the stage should be protected against catching fire by impregnation with suitable chemicals. It is now possible by chemical means to reduce the inflammability of these materials to such an extent that, when fire is applied to them, they simply glimmer away, and do not communicate the flame any further. The curtains, stage properties, and scenery might likewise be deprived, to a large extent, of their dangerous character as regards fire by the chemical impregnation of the linen before painting or by applications at the back.

Remarks on Section 2. According to the statements of Herr Fölsch, in his work on "Fires in Theatres, and the Measures requisite for their Prevention," p. 106, almost all the fires, without exception, which have broken out in theatres during the performance have arisen from open or imperfectly protected lights. The same author likewise shows that the numerous theatres which have caught fire shortly before the hour for the admission of the public, through some want of caution in lighting the gas or oil lamps, have been destroyed through open and badly-guarded lights on the stage side of the house. There is nothing surprising in this, since we find on the stage a large number of very inflammable objects with numerous jets of flame distributed among them, a brilliant illumination being necessary. Such flames must, in part, at least, be alternately lighted and extinguished, besides being fixed for the sake of the desired artistic effect in various positions about the stage. The slightest false movement, the failure properly to raise or drop a curtain or any other inflammable object, the breaking of a piece of the stage machinery for moving the decorations, is liable to bring easily combustible objects into contact with an open flame, and so to set the place on fire. The danger is materially increased by the general employment of gas. Danger attaches even to what is comparatively the safest method of lighting gas, viz., by means of electricity, for the apparatus at times does not work. An escape of gas then follows, the result often being that the next attempt to light the gas causes an explosion. In such cases inflammable objects at a considerable distance are directly set on fire or driven so as to come in contact with open jets. The danger is perhaps even greater when the gas fails to take light in a few isolated places which at the time escape notice. The inflammable mixture of gas and air which is then formed, and which will explode as soon as it reaches an open jet, may carry danger to the remotest part of the building. The extensive system of gas-piping in a theatre, too, is liable to be damaged, and thus become a source of danger by the escape of gas. In view of facts like these Herr Fölsch remarks that "while in all civilised countries there is a general prohibition of open flame in dangerous spots, this prohibition strangely enough is entirely ignored in the case of theatres, although, so far as is ascertained there is no country where such an exception in favour of theatres is granted by any statute or other legal authorisation." As a matter of fact, the German Penal Code (section 368, Nos. 6 and 7) contains a paragraph according to which any person who strikes a light, lets off firearms or fireworks in proximity to inflammable objects, is liable to a penalty of 20 thalers (3*l.*) or fourteen days' imprisonment, nor is any exception made to this law in favour of theatres.

It is an indispensable condition for safety from fire in theatres that, so long as large quantities of easily inflammable materials are employed in them, all open lights must be done away with. The means of doing this are supplied by *electric incandescent lights*. These generally consist of a carbon filament of a quarter to half a millimètre in thickness, and 10 to 15 centimètres in length, inclosed in a hermetically-sealed air-tight glass bell. When the carbon filament is rendered white hot by the electric current, and thereby made to give out light, the glass bell containing it is only slightly warmed, so that even an inflammable substance on touching it does not catch fire. Neither do the conducting-wires constitute a source of danger from fire, inasmuch as, when properly fitted up, they are scarcely sensibly heated while in operation. Nor, again, is there any danger to persons touching the conducting-wires of these incandescent electric lamps, when the lights are properly arranged, as the electro-motor force then employed is but small. For the same reason, even if the conducting-wires are broken, there is no danger, because the Davy arc does not appear at the fractured spot when the electro-motor force employed is small. If, through accident, a lamp is broken, the thin and highly-heated carbon-fibre, with the access of air, burns away so rapidly that there is no danger of anything taking fire. The only imaginable case where a fire could arise from the incandescent light is, when one of the thin branch-wires, running from the main conducting wires to the lamps, is fractured and forced into such a position as to connect the chief wires. In this case, owing to the strong current passing through it, the small wire may be made white hot, and so set fire to any inflammable materials that might be near it. This danger, although not absolutely removable, may, however, for practical purposes, be completely obviated by a good system of insulation and proper management of the current. Incandescent electric lighting is capable not only of meeting all the technical requirements of the stage, but of supplying it with the means of producing certain new effects. The conducting-wire may be readily and without any inconvenience applied at any point of the stage. By the simple turning of a handle or lever, any section of the lamps may be lighted up or turned down or off; and the colour of the light may be the yellowish-reddish tint of ordinary gas. Other colours may be obtained by having coloured glass in the lamps, and the white light may be gradually or suddenly extinguished, or replaced by coloured light. In short, the incandescent system is capable of producing all the effects desired in the way of light upon the stage.

It must be admitted that practical experience in the lighting of the stage with the incandescent system is as yet but scanty. The completest trial so far appears to have been made at the Savoy Theatre in London. No doubt, longer experience and further experiments are required before the incandescent light will be generally admitted perfectly to satisfy every requirement of the stage. In view of the tests the system has already stood, however, we unhesitatingly give our opinion that it appears calculated to reduce the danger of fire on the stage to a minimum without interfering with stage business.

Although the lighting of the auditorium of theatres involves far less danger than that of the stage, it appears desirable that electric lighting should be adopted in that and, indeed, in all other parts of the house. Whether this should be exclusively effected by incandescent lights, or whether, in the intervals of the performance, the auditorium should be illuminated with the white arc-light, is a question we will not attempt to settle. The defects formerly shown by the arc-light by pieces of the white-hot carbon points shooting off, and the danger thence arising, have already been removed by the rapid advance of technical science, partly by the supply of better carbons, partly by enclosing the lamps in glass balls enveloped in wire netting. Besides the greater security against fire, the electric light in the auditorium has another advantage, in that while developing a comparatively small degree of heat, it does not vitiate the atmosphere like gas. Hence the problem of the ventilation of theatres is rendered easier with a system of lighting by electricity than it is with gas.

In order to be secure against the extinction of the electric light, it is necessary in the case of a large installation to lay down two, or even three, independent illuminating circuits, each with its special engines and conducting wires, and to fix lamps in all the apartments connected with each of the separate circuits. In this way the passages and staircases may be lighted with electricity, as the safety will be equal to that of oil lamps, which may either go out, or even be left unlighted.

B. PROTECTIVE MEASURES.

1. In case of a fire breaking out on or about the stage,—such fires, when not instantly put out, commonly, as experience shows, extend with great rapidity,—the hot gases produced by combustion usually, owing chiefly to expansion, penetrate into the auditorium, and first threaten the safety of the persons in the upper parts of the house. Such gases in a short time exert a stupefying effect, and hence they tend to prevent the audience from escaping, and to hinder the firemen entering for the purpose of saving life and extinguishing the flames. Hence the necessity of the adoption of some incombustible, and, as far as possible, air-tight appliance to cut off the stage from the rest of the house, or to close the front of the proscenium against the auditorium. A number of sufficiently large apertures with chimney-funnels of sufficient height are also wanted above the stage in order to draw off the gases of combustion and prevent their entering the auditorium. The appliances for opening and shutting the apertures over the stage, and the mechanism for moving the iron curtain in front of the stage, ought to be accessible from various positions, so that the former may be readily opened, and the latter come down by its own weight.

2. If the gases produced by combustion penetrate into the auditorium, the persons in the upper galleries and tiers of the house are the first to be in danger. Hence these parts of the house more especially stand in need of numerous doors for letting the public out; they should open on to well-ventilated or ventilatable and well-lighted corridors and staircases. The proposal made by Herr Scheffler that a corridor should be constructed behind the gallery, therefore, deserves attention. This corridor, as well as those behind the boxes and pit, ought each to be large enough either alone or with the help of adjoining rooms to contain all the persons of the audience occupying seats on the same floor.

3. The apartments adjoining the stage, and intended for the accommodation of the *personnel* of the theatre, require special means of protection. They ought to be capable of being shut off from the stage so as to be as far as possible proof against fire, and where requisite fireproof stairs should be provided. The doors leading out of these apartments should also open on to a well-ventilated and well-lighted corridor. (Signed) SCHNEIDER.

The Royal Academy of Architecture,
Berlin, 14 June, 1882.

The Sunday Society.—The members of the Sunday Society visit the Grosvenor Gallery on Sunday next (July 16th), and on the first Sunday in August the Gallery will be open to the public by tickets, which may be had by all who send a stamped and addressed envelope for the same to Mr. Mark H. Judge, 8, Park-place Villas, Paddington. The Duke of Wellington has renewed his invitation of last year, and visits of the members of the Society will be made to the historical collection at Apsley House during the Sundays of July and August.

THE HAMILTON PALACE COLLECTION.

It might be imagined, by those who at a distance have followed so far the sale of the Hamilton Palace Collection, that by this time the chief treasures had been disposed of. Such, however, is not the case, and the fourth portion of the sale, placed on view in King-street, and sold at the beginning of this week, worthily took its place by the side of its predecessors. The promise held out by the names of Rembrandt, Velasquez, Van Dyck, Lely, Claude, and a number of other well-known painters; the expectation to see a fresh series of pieces of furniture which had once belonged to Marie Antoinette, with various other treasures, was amply sufficient to crowd Messrs. Christie's rooms.

Notwithstanding the rarity, amounting in many cases almost to uniqueness, of the objects exhibited week after week, and notwithstanding the very justifiable interest that the visitors to King-street take in these objects, still the pictures assert their own extraordinary position of dignity, in spite of the liberties that have been taken with many of their titles.

Genuine portraits by Velasquez are rarities which every day grow scarcer in the sale-rooms, and the Philip IV. of the Hamilton Collection may be said, away from Madrid, to be one of the most characteristic works of the master, not alone as a specimen of thoughtful portraiture, but as a superbly bold piece of technical execution. The rarity and instructive value of such a possession, which now the nation will own for ever, is alone to be appreciated by those whose study has led them to estimate as it deserves the grandeur of the Spanish painter of whom Sir Joshua Reynolds said that he could do in a few hours what it took him (Sir Joshua) weeks to paint.

But the most interesting picture of this portion of the Hamilton sale may certainly be said to be that described in the catalogue as a "Council of Eleven English and Spanish Statesmen," containing, in addition to the portraits of six Spanish and Italian noblemen, the portraits of Earls Dorset, Nottingham, Devonshire, and Northampton, and at the top of the table, on the right hand side, sturdy Robert Cecil. The work, a carefully-executed picture by the Spanish court painter of Philip III., Juan Pantoja della Cruz (as he should be called in the catalogue), is in the marked style of the Low Country artist Antonio More. It is many years since a picture of such extraordinary interest to the English public has been brought to the hammer, doubtless representing, as it does,—it being dated 1594,—some international incident that followed on the inglorious failure of the Spanish Armada. The portraits are marvels of dexterous minuteness, while the rest of the picture is scarcely less remarkable for the care bestowed on the details of the room decoration. The National Portrait Gallery, in obtaining this intensely interesting picture, has indeed enriched its already valuable collection with a treasure. By Coello, the portrait of the Duke of Alva may be said to have been a most appropriate accompaniment to the Philip IV. and the Spanish Council, while the Murillo, "The Sleeping Christ," is a characteristic example of the master.

In this fourth portion of the sale the French school was well represented, though chiefly in portraiture. An interesting portrait of Henry Stuart, Cardinal York, by the French painter Blanchet; a portrait of Madame de Maintenon, by Lebrun, representing the lady evidently at the outset of the devout period of her later life; a portrait by Vanloo of the gallant Marshal Saxe; a portrait of Marshal de Foix, by Rigaud, the so-called "French Van Dyck," a painter scarcely less industrious as a portraitist than our own Reynolds; the portrait of James, Prince of Wales, and his sister, when at Saint Germain, by Largillière, the very characteristic painter of the flowing robes and powdered wigs of the court of Louis XIV.; a most interesting and faithful full-length of Napoleon I., painted specially by David for the Duke of Hamilton; several Poussins (the "Entombment," very characteristic); a magnificent Claude,—the "Ariadne and Bacchus" of the *Liber Veritatis*; an amusing Fragonard, and a capital portrait of the Marquis de Marigny, brother of the Pompadour, by Tocqué; and two pictures very rashly attributed to the interesting French painter Jean Cousin.

As completing the interest in last week's show must be mentioned four small grisailles by Van Dyck,—portraits belonging to the famous series of *Icones* in which the Duke of Buccleuch's collection is so rich; an unmistakable portrait (by Lely) of the courageous Lucy, Countess of Carlisle, though the catalogue merely calls the work "A Lady in a White Dress"; a manly portrait, by the same painter, of David Leslie (afterwards Lord Newark); more than one Van Dyck, but none of superlative merit; an interesting sketch by Rubens; a so-called Van Eyck, beautiful but doubtful; a Lucas Cranach, dated, it may be mentioned, some ten or so years after the death of the painter; a curious Mabuse; several Breughels; and a fine Teniers. Respecting the two Rembrandts of the collection, the "Magdalen" and the "Prince of Guilders," such considerable doubt exists,—notwithstanding the merit, especially, of the former,—that we sorely doubt if the purchaser or purchasers will ever obtain that pleasure from their ownership which may be said to be the first element of possession.

Of pictures by English artists, the full-length portraits of George III. and his queen, Charlotte, by Ramsay,—strangely enough, labelled on the frame as by "Sir Thomas Lawrance" (*sic*), though the error is corrected in the catalogue; a superb landscape by Wilson; another by Gainsborough; two terribly cracked Ettys, with a few others, formed part of the last week's show, in which certainly the foreign schools may be said to have come out stronger than ours; indeed, in English masters, the Hamilton Collection, as shown, at least, in King-street, cannot be said to have been rich; nor are we even promised any marvels, except, perhaps, among the wonderful series of miniatures to be sold next week.

In this fourth portion of the sale the superb pieces of furniture may be said to have excited with not a few almost as much interest as the pictures. The three cabinets which once belonged to Marie Antoinette, two bearing her cypher, may be regarded as simple marvels of the decorative art of the eighteenth century. The elaborate and yet perfectly-restrained decorations of chased and gilt bronze from the hand of Gouthière, the French chaser of the reign of Louis Seize, setting off the rare black and gold Chinese lacquer, are delicacies of design and manipulative execution which the past seems alone capable of having produced. To those familiar with the artist's fame it can be understood what would be promised by a Gouthière cabinet that once had been in the possession of Marie Antoinette, and the result may be said to have fairly come up to expectation. The condition of these works is wonderful after the perils they must have run through, for, like so many other treasures of the Hamilton sale, they are relics of the wreck of the Revolution. It seems, indeed, a cause for regret that such a figure as that of the little marble Voltaire, attributed to Houdon, should be parted from surroundings so congenial. There, in the midst of the creations of a world which departed in the cataclysm he had so surely prophesied, the old philosopher of Ferney sardonically smiled as he smiled all through his long life. If the little figure does not possess the wonderful vigour of Houdon's famous seated statue of the philosopher which calmly gazes down upon the public from its place of honour in the *foyer* of the Théâtre Français at Paris, it certainly will charm its successive owners by the vivacity of its execution.*

The Sanitary Institute.—At the anniversary meeting, held at the Royal Institution, on Thursday, July 13th, H.G. the Duke of Northumberland in the chair, an address was delivered by Mr. Edward C. Robins, F.S.A., entitled, "The Work of the Sanitary Institute of Great Britain."

PROGRESS OF INDUSTRIAL ARTS IN GERMANY.

A semi-official report, all the more remarkable because it emanates from a Frenchman, proclaims the fact that not only have the German art industries made extraordinary progress, but are now in many instances able to compete successfully with the French on the French markets. The Union Centrale des Arts Décoratifs recently commissioned M. Germain Bapst to travel through Central Europe, and establish relations between this French society and all kindred institutions abroad. He was to visit all the museums, take notes of all improvements and bring back plans and drawings. The mission was a delicate one, as its practical object was that of enabling the French art-manufacturers to resist foreign competition. Nevertheless, it was attended with much success, and M. Bapst established profitable relations between the French Union Centrale and the following gentlemen whose names we give as being among the foremost promoters of art industries:—Baron de Heffner-Alteneck, of Munich; Herr Essenwein and Herr von Schörn, of Nuremberg; the Councillor Herr Graese, Herr Buttner, and Professor Graff, of Dresden; MM. Fusch, Kulesse, and Burg, of Breslau; Mr. Ostereicke, at Cracovia; and with MM. Charles and Francis Pulsky, George Rath, Xantheis, Hegedus, Henzelmann, Count Eugene de Zichy, and Count Apponyi, of Pesth.

From these sources valuable notes have been obtained concerning the methodic classification of objects and models, and notably their exhibition in suitable cases and light, two conditions often insufficiently studied by the conservators of museums and schools of art. This is coupled with drawings and plans of all the new museums of Germany destined to receive art or industrial collections. Thus it is modestly argued that if, in the great movement for the development of art study, France is the last among nations to construct edifices consecrated to the union of arts and industry, she may, at least, benefit by the experience acquired in other countries, and will raise a school perfect in its conception, suitable in every sense to all the requirements of artists and well calculated to educate the public and facilitate the studies of craftsmen or artisans.

At Munich, at Dresden, at Breslau, at Pesth, everywhere M. Germain Bapst met a small group of ardent regenerators who, either by collecting and classifying the vestiges of ancient art, or by stimulating the ingenuity and taste of the artisans around them, sought to revive the wholesome art doctrines of the past and harmonise them with the improved methods and increased facilities of modern manufacture. To M. Bapst the Hungarian art-work presented the most attractive features, though he renders full homage to the skill and great efforts of the Germans. At Vienna he was much disappointed, finding that the museums were not classified with the science of the Germans, and failed to display the taste of the Hungarians.

In Germany, M. Bapst thought that the progress achieved during the last four or five years is absolutely menacing the continued prosperity of several French industries. This result has been brought about principally by the increasing efforts and the impetus given by the Dresden school of art and industry. This establishment is directed by Professor C. Graff, and consists of three hundred pupils, who work at industrial drawings and supply models or designs to the manufacturers of furniture, tissues, jewelry, lace, decorative wall-papers, &c. If a manufacturer is in want of some designs or models, M. Graff explains the subject to his pupils, who compete with one another to attain the desired effect. It is the outcome of such a course of studies which is ultimately supplied to the manufacturer, who is thus certain of obtaining a design of merit. Nor does this institution content itself with rendering services to those who desire its assistance; on the contrary, Professor Graff is constantly seeking out industries where the products are not creditable from the artistic point of view. To these inferior manfacturers he addresses patriotic reproaches, and finally supplies them with models and designs, so that the goods they produce shall no longer offend the artistic taste he has taken such pains to develop.

M. Germain Bapst lays special stress on the excellence of the cabinet work of Messrs. Turpe and Friedrich Bernhardt. The school of arts and industry seeks to revive in the models that it gives out, the old Flemish-German style of the sixteenth and seventeenth centuries, and these are executed with rigorous minutiæ and the most delicate care. In goldsmiths' work, M. Bapst describes Herr Henninger, of Berlin, as a master endowed with great taste. For wall-paper, with designs modern in style, and each admirably suited for its special destination, the work of Herr August Schutz at Wurzen, and of Herr Ernest Schutz at Dessau, is so excellent that we are assured it will "confound both French and Belgian manufacturers." Finally, the silk and cotton tissues of Elberfeld for the covering of furniture are so perfect in style and quality that a large quantity are actually exported into France, and are now competing successfully with the products of the Lyons manufacturers. M. Bapst, impressed by all these facts, entertains the liveliest fears as to the results of the next universal exhibition. He dates the present extraordinary and rapid development of German art industries to the effect produced by the International Exhibition of 1878, and suggests that, as the cost of labour in Germany is only half as great as in France, for goods of equal value, the advantage would be with the Germans.

---

* At Saturday's sale the National Gallery acquired, for 6,000 guineas, the Velasquez portrait of Philip IV., as also a Steenwyck, for 195 guineas; for the National Gallery of Ireland, Mr. Doyle purchased Poussin's "Entombment" for 480 guineas; while the National Portrait Gallery acquired the Council picture by Pantoja della Cruz for 2,400 guineas. "The Infant Christ," by Murillo, was sold for 2,300 guineas; the Wilson landscape for 1,000 guineas; the Portrait of Cardinal York for 1,300 guineas; the four Vandyck grisaille portraits fetched 200 guineas; the sketch by Rubens 100 guineas (bought for France), one of the Breughels, 430 guineas; the Teniers, 900 guineas; Rembrandt's Magdalen, 210 guineas. At Monday's sale one of the Gouthière cabinets was sold for 5,460*l.*; the Marie Antoinette sécretaire for 9,450*l.*; and the companion commode for the same extraordinary sum. We have to correct a clerical error in our last week's issue, respecting the price of the Duc de Choiseul's writing-table, which was sold for 3,565*l.*, not 5,565*l.*

The importance of these declarations are evident to all, and it is high time that French manufacturers should travel and ascertain for themselves what is being done abroad. To us it is satisfactory to note that on all sides, in all countries, the art revival is displaying its vitality, and growing in strength; but these special facts concerning Germany will add to the interest of the Nuremberg exhibition of arts applied to industry which is now opened. From the architectural point of view, the good taste in the details displayed in building the exhibition palace are in themselves, we are assured, well worthy of a visit. In any case, a curious expedient has been adopted which will attract attention. The basis of all the walls is to be protected by a drapery made of jute saturated in a chemical substance, probably alum, which will render it fire-proof. Perhaps the Nuremberg exhibition will be an appropriate confirmation of M. Bapst's report, and doubtless will draw many visitors curious to test for themselves the full value of the revival in German art industries.

FROM ABROAD.

The Hercules Bridge at Berlin.—The *Deutsche Bauzeitung* calls the attention of those interested in the preservation of relics of the art of past ages, to the possibility of rebuilding the above bridge at a point of the stream where the locality would insure such a height as to obviate any difficulties with respect to the navigation of the Spree. Two of the most celebrated artists of a century ago, Langhaus and Schadow, were jointly engaged on this work, the removal of which from its present position would seem necessitated by local circumstances.

The Sanitary Condition of Berlin.—In an exhaustive report, Dr. C. Skrzeczka has recently described the progress of sanitation in the capital of the German empire up to the end of the year 1880. He dwells forcibly on the improved state of such parts of the city as are in connexion with the sewerage system. As to the water-supply, it seems that many of the springs of the city contain an excessive quantity of chlorine. The activity of the authorities charged with the carrying out of the laws against adulteration has been exercised with respect to the beer which forms such an important element in the daily sustenance of the German nation. The general result of the investigation goes to prove that injurious substances are but rarely met with, such ingredients as are sometimes used in place of hops being bitter products of a harmless character. The growing demand in this country for German beer is therefore not to be regretted.

Russian Cement.—According to a circular recently issued by the Russian Government to the leading railway companies, it is notified that there has hitherto existed an ungrounded prejudice against the use of cement of native manufacture, preference having been shown to the imported article, more particularly of English make. It is remarked that the Russian product has given complete satisfaction in its use during the construction of the Alexander II. Bridge over the Neva, the Alexander Bridge over the Volga, and Msta Bridge, on the road built to avoid the ascent at Werebjinskaja. The Russian cement is described as being of extreme fineness in its triturated state, and the fluid mortar made from it is said to possess an exceptional degree of resistance. Amongst other measures enjoined in the Ministerial circular is a provision for any technical conditions attached to concessions, &c., to be based on the employment of Russian cement when it is procurable; the use of other kinds being only sanctioned when the home-manufactured article is not readily obtainable.

The Sistine Chapel at Rome.—The *Vossische Zeitung* gives currency to a statement that the Pope has decided on considering the above noted church as one of the most important monuments of Italian art, and has resolved on ordering the cessation of all religious ceremonies within its walls. The world-renowned frescoes of Michelangelo have, it is stated, suffered so much from dust and from the effect on the air of the burning of numerous candles, that the above step has become necessary for the preservation of these wonderful examples of religious art.

PREMIUMS AWARDED BY THE INSTITUTION OF CIVIL ENGINEERS.

The Council of the Institution of Civil Engineers have awarded the following premiums:—

For Papers read at the Ordinary Meetings.

1. A Watt Medal and a Telford Premium to Dugald Clerk, for his paper on "The Theory of the Gas-engine."
2. A Watt Medal and a Telford Premium to Joseph James Coleman, for his paper on "Air-Refrigerating Machinery and its Applications."
3. A George Stephenson Medal and a Telford Premium to Thomas Fletcher Harvey, Assoc. M. Inst. C.E., for his paper on "Coal-washing."
4. A Watt Medal and a Telford Premium to William Proctor Baker, for his paper "On the Various Systems of Grinding Wheat, and on the Machines used in Corn Mills."
5. A Telford Premium to William Henry Wheeler,* M. Inst. C.E., for his paper on "The Conservancy of Rivers; the Eastern Midland District of England."
6. A Telford Premium to Leveson Francis Vernon-Harcourt,† M.A., M. Inst. C.E., for his paper on "Harbours and Estuaries on Sandy Coasts."
7. A Telford Premium to Ewing Matheson, M. Inst. C.E., for his paper on "Steel for Structures."
8. The Manby Premium to Henry Joseph Butter, M. Inst. C.E., for his paper on "Forces and Strains of Recoil considered with reference to the Elastic Field Gun Carriage."

For Papers printed in the Proceedings without being Discussed.

1. A Watt Medal and a Telford Premium to John George Mair, M.Inst.C.E., for his paper "On the Independent Testing of Steam Engines, and on the Measurement of the Heat used."
2. A Telford Medal and a Telford Premium to James Mansergh, M.Inst.C.E., for his paper on "The Lancaster Waterworks Extension."
3. A Telford Medal and a Telford Premium to Wilfrid Swanwick Boult, Assoc. M.Inst.C.E., and a Telford Medal and a Telford Premium to John James Potts, Assoc. M.Inst.C.E., for their joint paper on the "Seacombe Ferry Improvement Works."
4. A Telford Premium to Charles Henry Moberly, M.Inst.C.E., for his "Account of some Tests of Riveted Joints for Boiler Work."
5. A Telford Premium to Robert Harvey, Assoc. M.Inst.C.E., for his paper on "Plant for the Manufacture of Iodine."
6. A Telford Premium to James Barron, Assoc. M.Inst.C.E., for his paper on "Buckie Harbour."
7. A Telford Premium to Patrick Walter Meik, M.Inst.C.E., for his paper on "The Bo'ness Harbour and Dock Works."
8. A Telford Premium to Harry Pasley Higginson, M.Inst.C.E., for his paper on "The Kawarau Suspension Bridge, N.Z."

The special thanks of the Council were voted to their colleagues, Dr. William Pole, F.R.S., and Mr. B. Baker, for their contributions on "Aërial Navigation," and on "Steel for Tires and Axles."

Gas Explosion.—In the evening of the 7th the base of the big lamp at the bottom of Preston New-road, Blackburn, blew up with a loud report, severely injuring a number of persons who were passing, and killing one. The explosion seemed to result from leakage, and it occurred when light was being applied by the lamplighter, who ran away and escaped unhurt. It shook the surrounding buildings and hurled huge stones 30 ft. into the air.

ARCHITECTURE AND THE ROYAL ACADEMY.

The following is a list of the Royal Academy admissions, July 1882. Mr. R. Phené Spiers, master:—

Upper School.—T. J. Dalziel, J. C. Hambling, C. E. Holmes, C. P. Leach, H. W. K. Martin, E. W. Smith, E. A. Woodrow.

Lower School.—J. H. Ball, D. W. Bellhouse, W. D. Caroë, B.A., H. O. Cresswell, W. J. Gargery, F. Johnson, F. L. Lee, E. S. Norton, P. J. Popplewell, J. G. Sanky, H. A. Satchell, W. C. Rea, F. H. Tulloch, A. F. Vigers, G. G. Wallace, G. W. Ward, W. H. Woodroffe, E. Woodthorpe, B.A.

Probationers.—F. S. Capon, E. Crisp, C. D. Fitzroy, A. Forrester, W. J. Gibbon, J. J. Muller, F. P. Oakley, S. B. Russell, J. E. Sears, J. Thomson, W. R. A. G. Tucker, W. F. Young.

A BRISTOL ARCHITECT KILLED.

We regret to record the death, under circumstances of a painfully distressing character, of Mr. J. H. Hirst, F.R.I.B.A., architect, of Small-street, Bristol. A servant at the deceased's residence, Avonhirst, Stoke Bishop, on coming downstairs on the morning of the 6th, found Mr. Hirst lying at the bottom of the staircase. He had apparently been dead for some hours, and subsequent examination of the body disclosed the fact that deceased had broken his neck. It is believed that in retiring to rest on Wednesday night he was either seized with a fit or missed his footing and fell down the stairs. Deceased had been in a weak state of health for some time past, and it is thought that his weakness might have prevented his making an effort to avert his fall. Mrs. Hirst and a portion of the family were away from home at the time. The deceased, who was an architect of considerable experience, had been for many years in practice in Bristol, and brought forward a scheme for constructing a new thoroughfare upon an easy gradient between Colston-street and the top of Park-street, and in connexion with which some rather extensive excavations were made opposite the New Theatre. Some years ago he took a warm interest in the Volunteer movement, and for a long time held a commission in the Bristol Artillery Corps. He was fifty-six years of age, and leaves a widow and numerous family.

Some of the best buildings in Bristol and its neighbourhood are the work of the unfortunate gentleman who has so lamentably passed away. Mr. Hirst originally came from Yorkshire. He has always kept up a connexion with this his native county, and for many years had a branch office at Harrogate, where he built St. Peter's Church, and many blocks of fine buildings. Mr. Hirst was deservedly popular in all the various walks of life with which he was identified, and his loss will be deeply deplored by all who knew him.

Collapse of an Hotel Roof in Manchester. Just before five o'clock on Saturday evening last, the roof of the Wheatsheaf Hotel, 64, High-street, Manchester, fell, causing great destruction and damage to property. The Wheatsheaf is a very old building, said to be the oldest licensed house but one in the city. The building is four floors in height, and of peculiar arrangement. Originally it consisted of the front premises and a yard, but subsequently the buildings at the rear were added to it, and the Wheatsheaf proper then comprised what is almost a square block, passages connecting the additional buildings. The proprietor is Mr. Wood, and recently he has carried out extensive alterations in the interior of the house, at a cost of some 1,500*l*. An examination of the premises which has been made leads to the supposition that the building fell from the inside. A cracking noise was, it is stated, first heard, and then the fall of the roof followed, the *débris* bursting through all the floors of that portion of the first block which is nearest Market-street, leaving the remaining portions of the building, or what may be described as the other wings, together with the contents, practically uninjured. The only way of accounting for the collapse, apart from the supposition that the building was struck by lightning (of which there is no proof, although a thunderstorm prevailed at the time), is that it was caused by decay, the supports of the building giving way through age. Fortunately no one was injured.

---

* Has previously received a Telford premium.

† Has previously received the Manby premium.

THE BAVARIAN NATIONAL, INDUSTRIAL, AND ART EXHIBITION, NÜRNBERG.

Old Nürnberg, the city of Albrecht Dürer, in which German art, at one period of its history, shone forth with a splendour which has been equalled, but never surpassed, has done honour to its venerable traditions by holding an exhibition which gives an impressive picture of the present state of the arts and industry of Bavaria. The exhibition buildings have been erected in the old park called the Judenbühl, outside the walls of the many-turreted imperial city, and at the foot of the old imperial castle, in which the green of trees surrounds the various edifices with a charming frame. The visitor to the exhibition enters the park by a broad avenue of trees, the first object to strike his eye being the reception-hall, a neat and well-decorated villa, through the pillared portals of which may be espied the Oriental splendour of its interior. The art pavilion, which is next seen, is not so happy in its exterior, but any shortcomings in an architectural sense are fully compensated for by its contents. The art exhibition which it contains gives us a picture of the development of the arts in Bavaria since the beginning of this century, consequently the period under King Ludwig I., as well as a view of the present state of efficiency of Bavarian art. By the manner in which this has been done, it is not too much to say that the art pavilion is the pearl of the Nürnberg Exhibition, and which will prove the principal point of attraction, especially for the foreign visitor. Joined to it by a covered lobby is the pavilion for industry and traffic. In the open court inclosed by this building a fountain has been placed, and from it a reading-room and the postal and telegraph offices are reached. The exhibition in the northern wing of this pavilion is especially instructive, being devoted to traffic; the southern wing is filled with objects relating to education. The hall which follows contains two complete railway trains, amongst which is a sleeping-car. This room, again, leads into the machinery hall, of an area of 45,000 square feet.

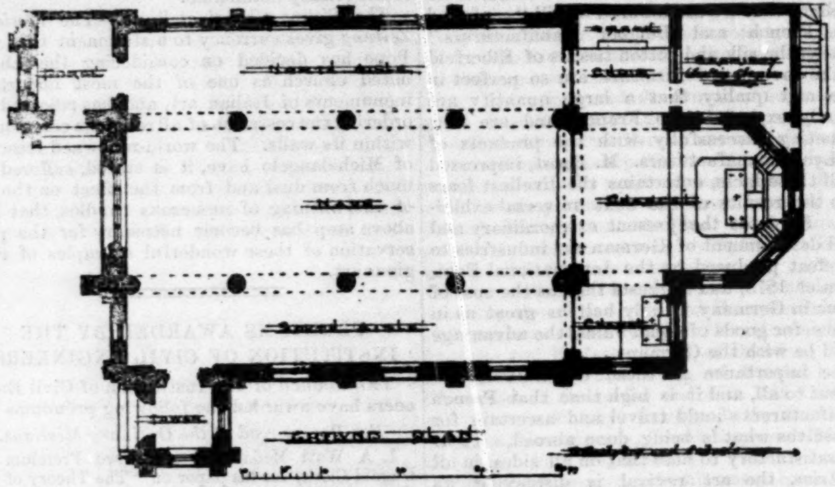
The most fantastic in its ornamentation is the principal industrial hall, which we illustrate. Although a blending of the Renaissance with the Indo-Oriental style may be objected to by critics, the edifice, as a whole, agrees very well in its appearance with its surroundings. This gigantic building, which is four times the size of the Stuttgart Exhibition of last year, contains in eleven groups the works of over 1,600 exhibitors. The efforts made in this department deserve recognition, if with quantity the quality of the exhibits is taken into consideration. The first place, perhaps, not only in Bavaria, but also in Germany, must be accorded to the art industry of München. Most remarkable are the manufactures of the gold and silver smith, and the products of the furnishing trade. We have no space at this moment to enter into the details of the exhibition, but the above rapid sketch may convey an idea of what is to be seen. The most instructive part is undoubtedly the fine-art department. The number of exhibitors, including the art section, is 2,850. The area covered by the exhibition is thirty acres; that by the buildings alone being over eight acres. It would not be right to overlook the efforts made in providing food and drink for the visitors. The national beverage, Bavarian beer, is well represented, and, let us hope, of the usual excellent quality. The pleasant wine of the Palatinate is also to the fore. There is nothing the Bavarian loves more than music. To satisfy his craving in this respect, concerts take place every evening in front of the principal restaurant. The park is illuminated at night by the electric light.

One point more in connexion with the exhibition must not be overlooked. When it was opened, on May 15th, it was completely ready in all its details. The catalogue, of over 500 pages, was finished the day before the opening. It contains, besides the list of exhibitors, statistical and historical introductions, prefixed to the various groups and sections, and will thus be of permanent value. The exhibition was planned and carried out by Herr Dr. Stegmann.

Sir John Soane's Museum.—Professor Hayter Lewis, F.S.A., has been appointed a life trustee to fill the vacancy caused by the death of Mr. Mocatta.

CHURCH (R.C.) OF ST. FRANCIS OF ASSISI, MAIDSTONE.

An account of this church, of which we publish a view and plan this week, was given on the occasion of the nave and western portion of it being opened by the late Bishop of Southwark.* The chancel and the remaining portions have now been completed. Mr. C. G. Wray, of London, is the architect.



Plan of Church (R.C.) of St. Francis of Assisi.

It is expected that the north side of the church, which is at present shut in by adjoining buildings, will shortly be freed from these obstructions, a deep cutting for the new railway from Maidstone to Ashford taking their place, by which an uninterrupted view of the church will be obtained for a considerable distance.

THE NEW HOMES FOR ORPHANS, SWANLEY, KENT.

These buildings, the foundation-stone of which is to be laid this day (Saturday) by H.R.H. the Prince of Wales, with Masonic ceremonies, are intended for the maintenance and education of orphan boys, and are being erected for the Committee of the well-known "Homes for Little Boys," at Farningham. Admission to the latter, however, being by their regulations restricted to the absolutely homeless, while, on the other hand, admission to the existing Orphan Asylums can only be obtained by the tedious process of election, the necessity for a home at once, where fatherless boys could be received on payment of a small annual sum, was felt to be urgent; and this want the present buildings are specially designed to meet. The boys would be admitted at an early age, and, after benefiting by the advantages that this institution gives, leave it qualified to earn their own living.

As there will here be congregated at the same time boys of all ages, the initial idea of this scheme is,—as will be seen from the accompanying plan and view,—the provision of a number of detached houses in order to facilitate the classification and separation of the boys, and these houses are grouped round a central block of school and workshop buildings.

The buildings are arranged on the site in such a way that the principal rooms may have a southern aspect, and also command a view of the charming scenery in this neighbourhood. They lie high, and are pleasantly situated near the Farningham Homes, and close to the Swanley Junction of the London, Chatham, and Dover Railway.

The reception blocks, or Dame's Houses,—blocks D and F on plan,—are semi-detached, and are each intended for the accommodation of twenty-five boys, who, being very young, would be under the care of a dame, or mother, until they were sufficiently advanced to be transferred, firstly, to the Assistant Masters' Houses,—blocks C and E on plan,—where they would be under the influence of the masters at home as well as at school; and, finally, to that of the head-master,—block B on plan. Here, during the last and most important period of their stay, they, under the guidance of the head-master and two assistant masters, would be especially prepared to make their start in life.

The central block,—block A on plan,—comprises the school-hall, with class-rooms in connexion, on the first or principal floor; and, on the ground floor, the general stores and offices, and also the technical workshops. These are intended to be specially fitted up, as may afterwards be considered advisable by the committee, who desire that the boys shall have the advantage of a good technical as well as general education.

The total accommodation at present contemplated in the blocks, as mentioned above, will be for 120 boys, but ultimately it is the intention of the committee to complete the buildings, as shown on the plan, when they will be able to receive 200 boys; and still be in a position to provide for a future extension, if necessary.

While keeping in view the wishes of the committee, it has been the special aim of the architect to combine the best and most efficient arrangements with compactness of plan and economy of cost; and, although the general structural arrangements are, therefore, of the simplest character, the health requirements of the inmates have been considered.

With regard to the external treatment of the buildings, a simple yet picturesque effect has been aimed at in the general grouping, but the use of expensive materials has been avoided.

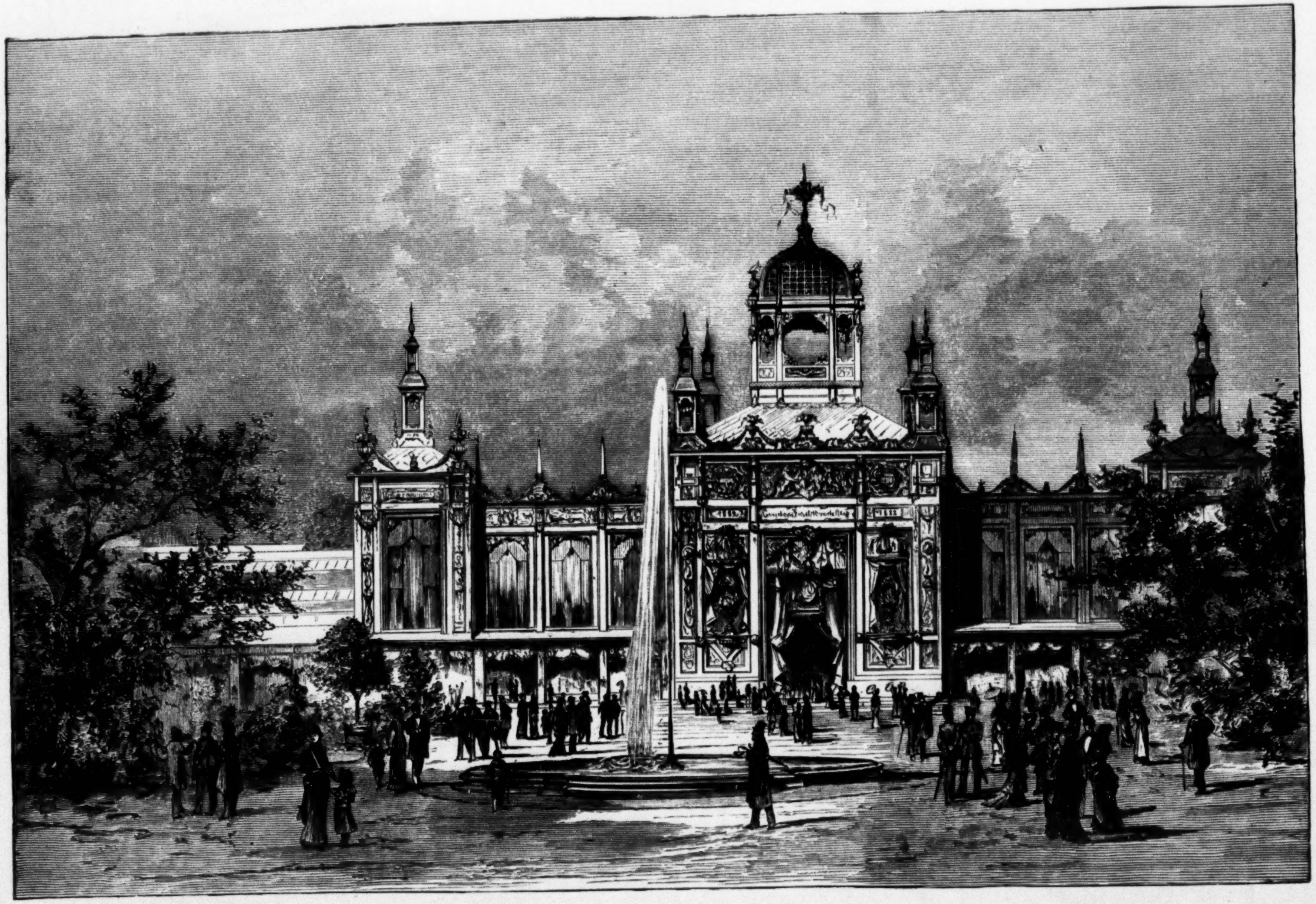
The walls are hollow, of stocks, with red facings, and very little stone is used except for sills, steps, &c. The contract for the first portion has been taken by Messrs. Martin, Wells, & Co., of Aldershott, who are carrying out the works under the superintendence of the architect, Mr. Henry Spalding, of 91, Queen Victoria-street.

"CLASSICAL POESY."

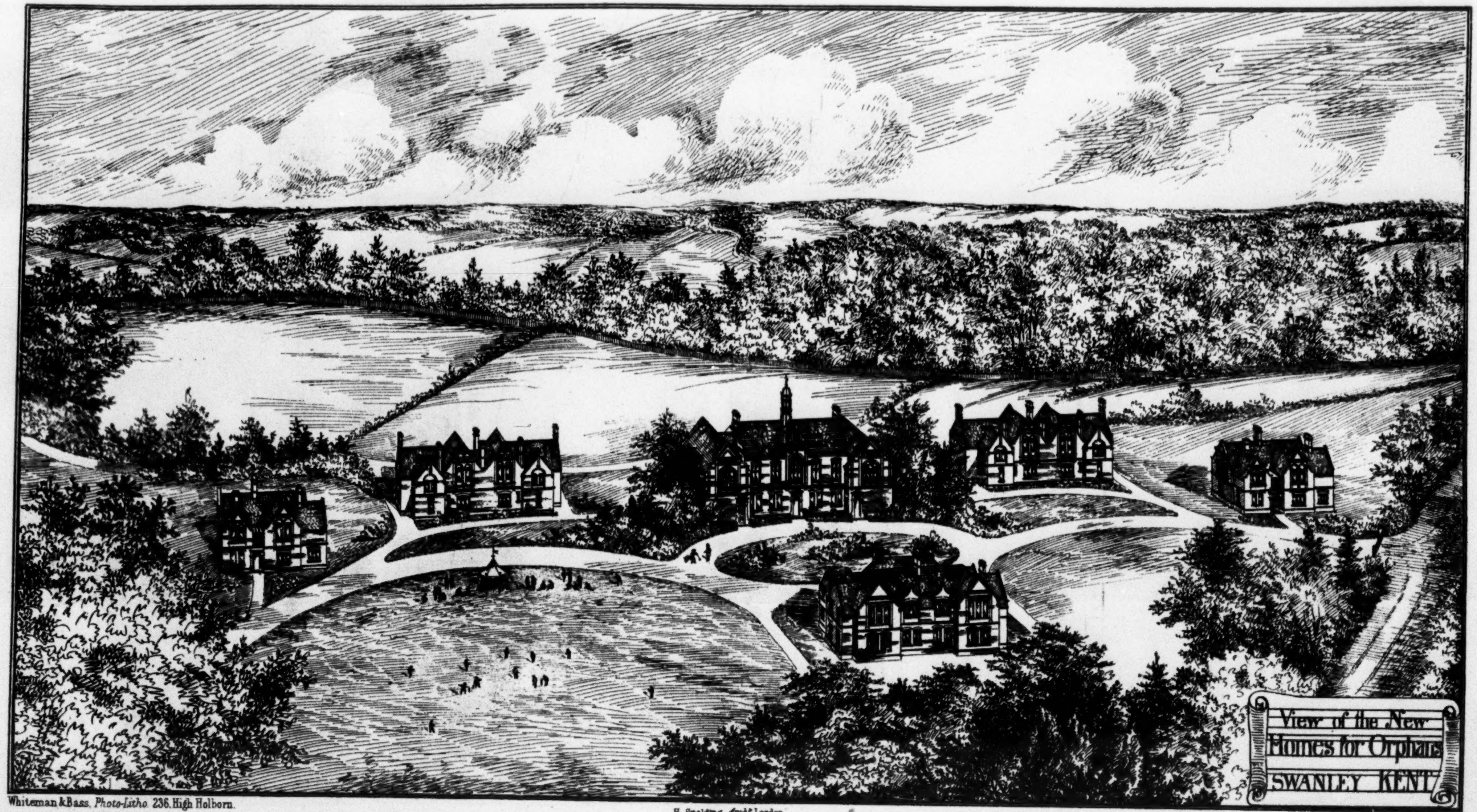
The allegorical figure of "Classical Poesy," by Edmund von Hofmann, and intended for the new Burg-Theater of Vienna, which we illustrate in this week's *Builder*, was one of the best works to be seen in the Austrian section of the International Art Exhibition held in the Vienna Künstlerhaus. The carefully-executed figure testifies by its pure lines and the high standard of its conception to a not common talent. Edmund von Hofman was born on November 2nd, 1847, and is consequently a young artist, who, independently of the future which is still before him, has already a remarkable past, having distinguished himself by a number of excellent works. The figure of "Classical Poesy" is intended for the centre projecture of the Löwelstrasse façade of the new Hofburgtheater, its counterpart being the statue of "Romantic Poesy," also to be modelled by Hofmann. With the figures, by Kundtmann, of Melpomene, Thalia, and Apollo, the two statutes of Hofmann's will be the largest which will adorn the new edifice. They are to be 11 ft. high, and in Marzono stone, a hard limestone. The block of stone for "Classical Music" had a weight of thirty tons. Edmund von Hofmann received his education at the Vienna Academy of the Plastic Arts, under the supervision of Professor Zumbusch, whence, having obtained the Roman Prize Stipend, he proceeded to Rome. He has executed some effective sculptures for the new Vienna Town-hall and the new University.

---

* See *Builder*, vol. xxxix., p. 544 (Oct. 30, 1880).



THE PRINCIPAL BUILDING, BAVARIAN NATIONAL INDUSTRIAL AND ART EXHIBITION, NÜRNBERG.

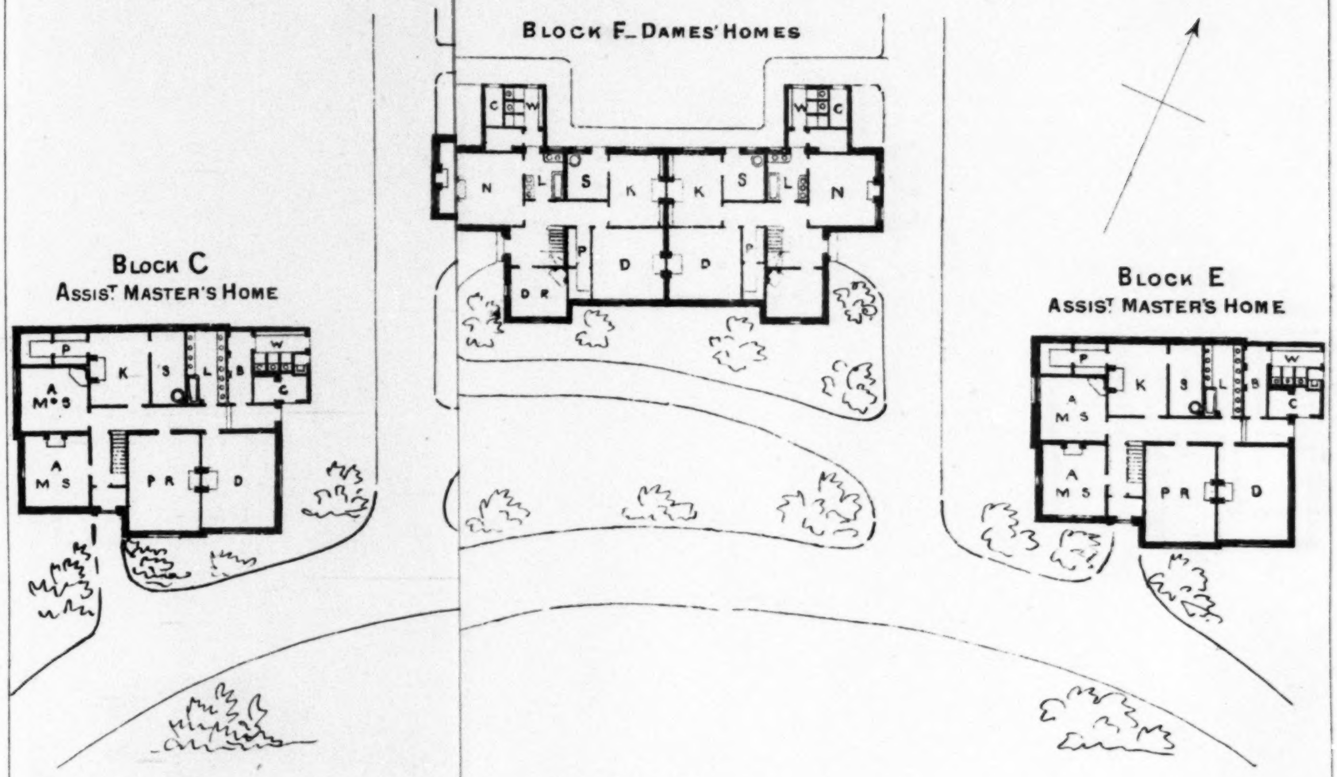


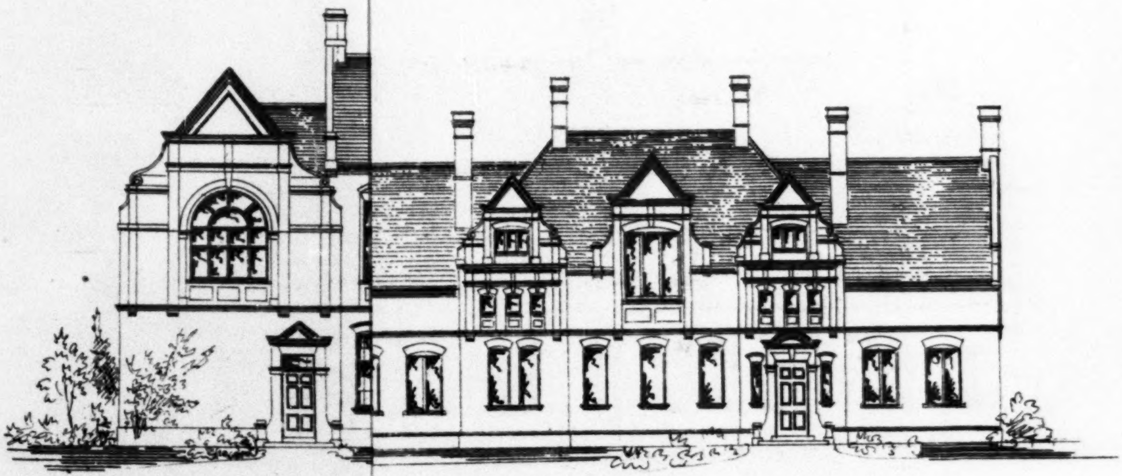
View of the New
Homes for Orphans
SWANLEY KENT

Whiteman & Bass, *Photo-Litho.* 236, High Holborn.

H. Spalding. *Archt.* London.

Wyman & Sons, Printers, Gt. Queen St.


Block F_ Dames' Homes
Block C
Assist. Master's Home
Block E
Assist. Master's Home
C
W
N
L
S
K
P
D
D R
M^rs S
A M S
B
P R
A M S



Block B.. North Elevation.

B...... Boots
C...... Coals
N...... Nursery
L...... Lavatory
...... Boy's W.C's & Urinals
R.... Dames Room
M.. } Asst. Master's Sitting Rm.
P.R.... Play Room
H.M.S. } Head Master's Sitting Rm.
S.Y. ... Study

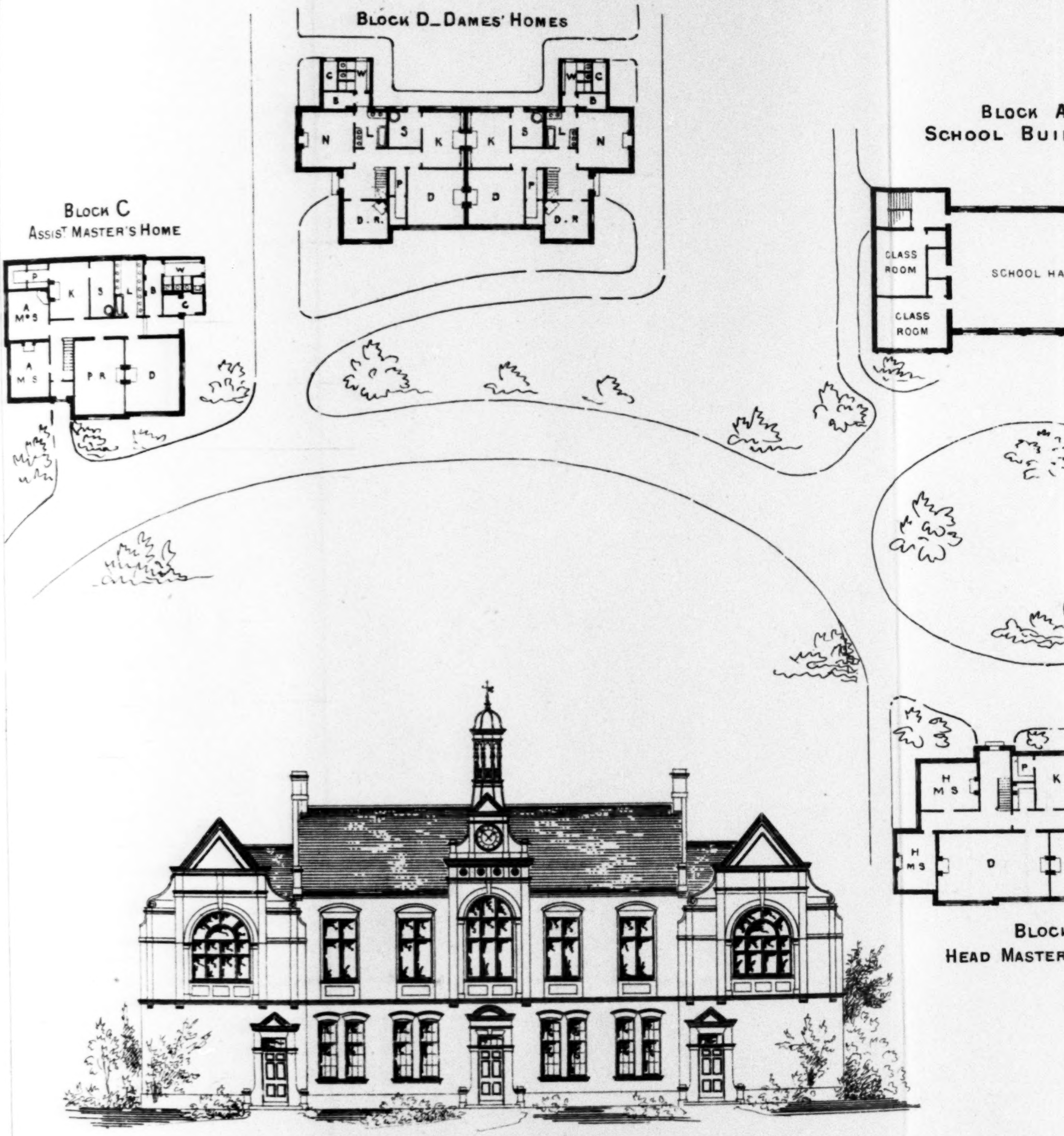
Whiteman & Bass. *Photo-Litho* 236. High Holborn.

Wyman & Sons, Printers, Gt. Queen St.

Wyman & Sons, Printers, G^t Queen S^t.

H. Spalding Arch^t London

Whiteman & Bass, Photo-Litho 236 High Holborn


Block D_Dames' Homes
C
W
B
N
L
S
K
K
S
L
N
W
C
B
P
D
D
P
D.R.
D.R.
Block C
Assis^t Master's Home
P
K
S
L
B
W
C
A M^r S
A M S
PR
D
Block A
School Bui
Class Room
Class Room
School Ha
H M S
P
K
H M S
D
Block
Head Master

Block A._South Elevation.

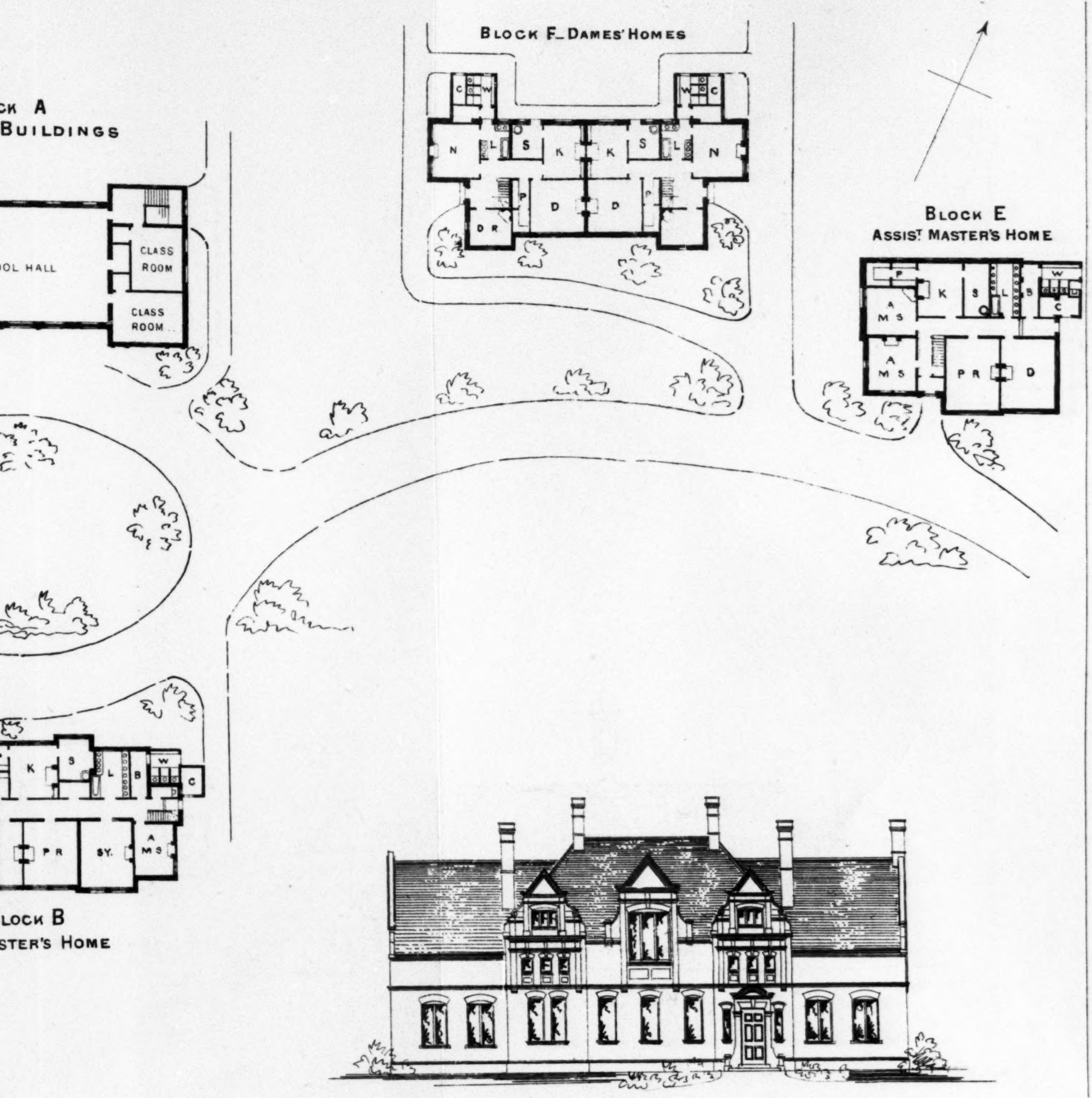
B	Boots	S	Scullery
C	Coals	K	Kitchen
N	Nursery	P	Pantry
L	Lavatory & Bath	D	Dining Room

Scale for

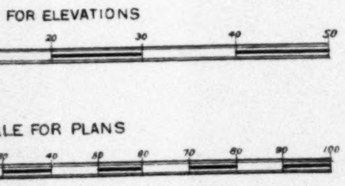
Scale fo

Whiteman & Bass Photo-Litho 236 High Holborn

THE NEW HOMES FOR ORPHANS, S


BLOCK F_ DAMES' HOMES
C
W
N
L
S
K
P
D
D R
CK A
BUILDINGS
OL HALL
CLASS ROOM
CLASS ROOM
BLOCK E
ASSIST MASTER'S HOME
A M S
PR
B
LOCK B
STER'S HOME
SY.

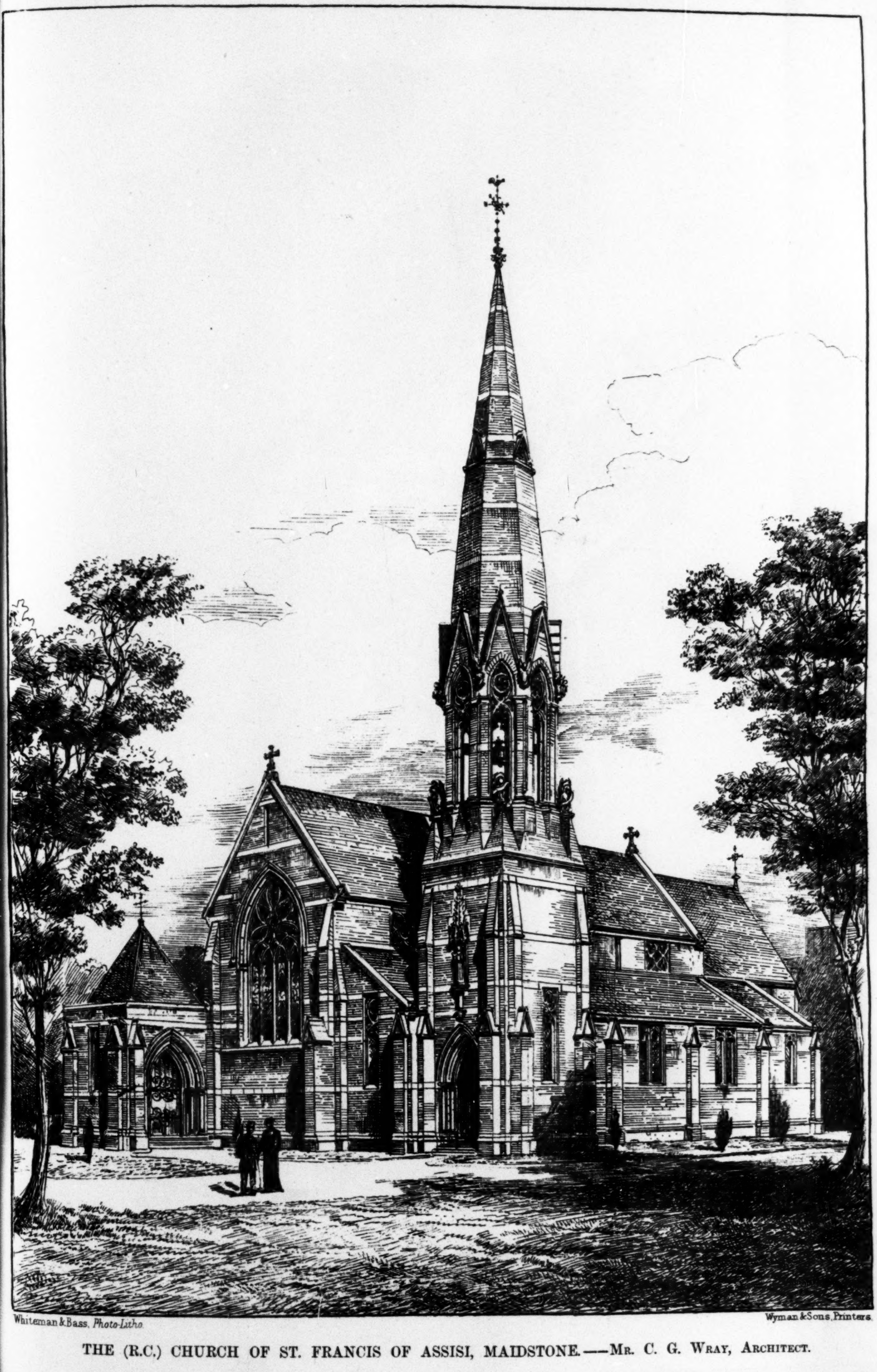
BLOCK B.. NORTH ELEVATION.


FOR ELEVATIONS
20
30
40
50
LE FOR PLANS
40
50
60
70
80
90
100

W........BOY'S W.C'S & URINALS
D.R.....DAMES ROOM
A.M. S. } ASST MASTER'S SITTING RM
P.R.....PLAY ROOM
H.M. S. } HEAD MASTER'S SITTING RM
S.Y.....STUDY

Wyman & Sons, Printers, Gt Queen St

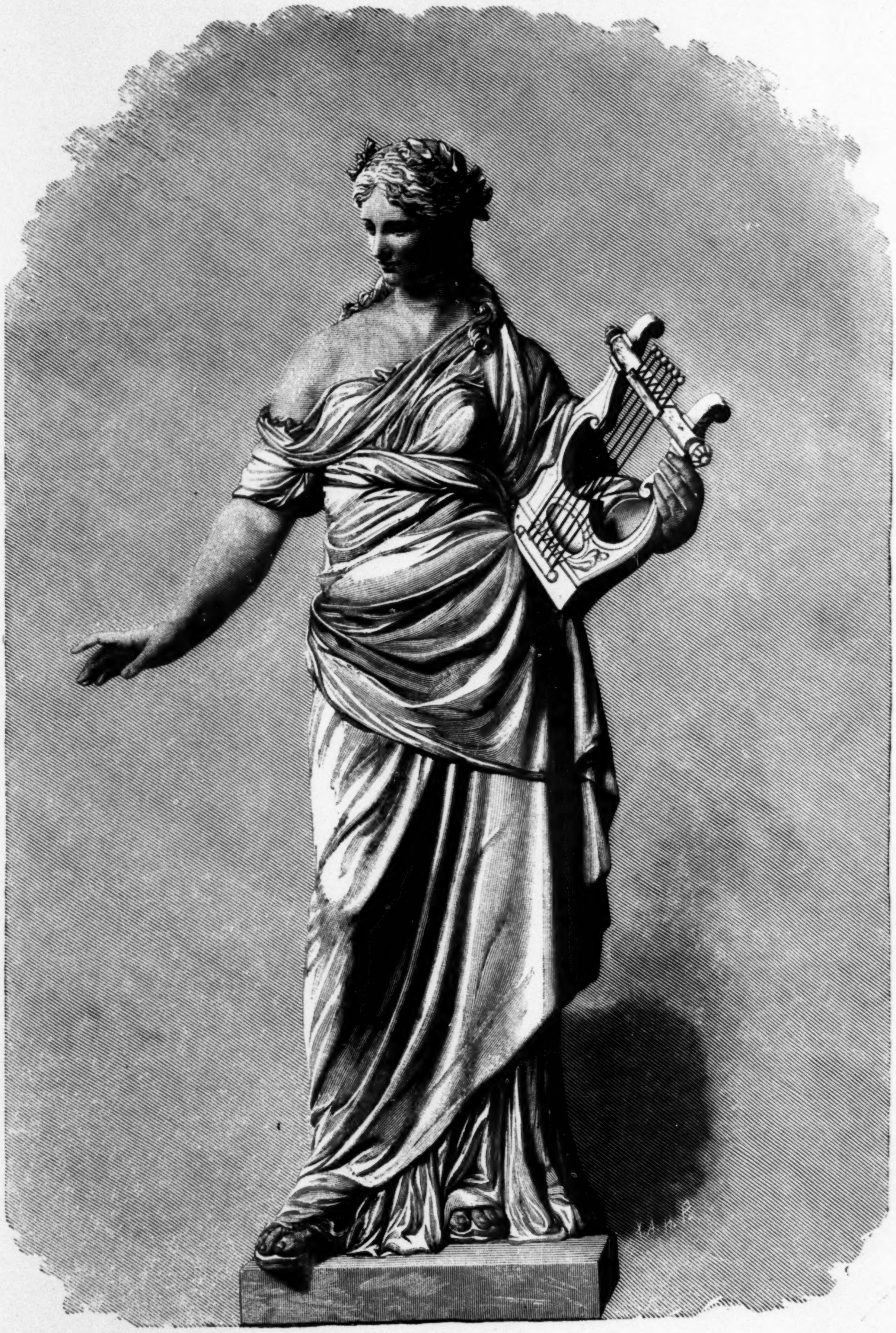
S, SWANLEY.——MR. H. SPALDING, ARCHITECT.



Whiteman & Bass. Photo-Litho.

Wyman & Sons, Printers.

THE (R.C.) CHURCH OF ST. FRANCIS OF ASSISI, MAIDSTONE.—Mr. C. G. Wray, Architect.



"CLASSICAL POESY," ALLEGORICAL FIGURE FOR THE NEW BURGTHEATER, VIENNA.

MODELLED BY EDMUND VON HOFMANN.

CHURCH DECORATION IN 1882.

FIVE HUNDRED POUNDS (and we should think much more will be spent before all is done) have been freely contributed to the decoration of a church in Surrey, and the experiment made in consequence is one which the architect will regard with no little interest. Contributed as a free, and we believe it may be added mainly an unasked, gift, the donation for the decoration of the Church of St. Nicholas, Guildford, is only the last of a series of munificent gifts, which, within a few years, have reared a new and handsome building on the site of one which had become unfit for the wants of the parish; have filled its windows with stained glass, have supported its services by a fine organ, and have rendered the tower vocal by a peal of new bells. As to the disposal of free offerings of this nature, criticism is silenced; although it may be permitted to express a regret that a provision of proper egress from the building, to the want of which attention has more than once been pointedly called, has not attracted the attention of the beneficent in preference to, or, at all events, concurrently with, the addition of ornament to the interior.

The object of the writer, however, is not criticism. It is our wish to attract the attention of those competent to form a correct judgment on the subject to the conduct of what we take leave to regard as a very interesting experiment. And this we wish to do in an architectural sense alone, without innuendo or *arrière pensée*. There are, of course, many people in this country who regard the introduction of colour into the interior of a church with unmitigated dislike, not so much on architectural as on theological grounds. Into that part of the question we decline to enter. There long has been, and probably long will be, room for the views of opposite schools on this subject. The architect who is familiar with the glorious churches of Italy, or with the sometimes even richer, though less known, ecclesiastical buildings of the Iberian peninsula, will feel disposed to regard the pictorial, rather than the ritual, excellence of a church-interior as that with which he is chiefly concerned. And it is from this point of view alone that we venture a word or two on the subject of interior decoration.

The question, as it seems to us, which is very aptly illustrated by the work in question, is that of the true canon of decoration, taking it for granted that decoration is desirable. It is the more necessary to make up our minds on this now, because there is a considerable conflict between the theoretically correct and the practically possible. The spirit of the old church builders, or even of their earlier predecessors. the builders of the noble temples of Jewish, of Grecian, and of Egyptian worship, has of late breathed in the fiery language of a great art writer, who has insisted on the necessity of the true, the thorough, and the unsparing in architecture, and especially in ecclesiastical architecture. As to the abstract truth of canons such as these we have no doubt. But what the architect has to do, ninety-nine times out of a hundred, is, not to carry out art canons regardless of expense, but to produce the best effect by limited outlay. Thus, all those rules (essentially correct as they may be) which prohibit anything like mechanical ornamentation, and which prescribe that every wreath of foliage, or every graceful arabesque, added as decoration to a building of a certain order, must be the expression of the mind of the artist; must, in fact, be more or less something of a hymn or even of a prayer, crystallised in stone or in pigment, have to be regarded under the control of ordinary common sense. No doubt it would be charming to many of us to use no earthenware but such as bore the flowing touches of the pencil of Raffaello or of some of the masters of the majolica art. But this would, for most of us, simply mean that we had to eat out of wooden trenchers. And the entire advance which has been made in the beauty of the ordinary table service since 1851 has been due, not to the refusal of any ornamentation but such as bears the stamp of the individuality of the artist, but to the improving (under the best artistic direction) of good mechanical procedures, by virtue of which articles of beauty, although cheaply and mechanically produced, may be attained by the million.

On this view of the case, we think that the objection which may be theoretically raised to the use of stencilling or other mechanical means of effecting decoration in a church tends to vanish. Fresco, as the word is understood in Italy, is as yet generally considered to be impossible in England. At all events, we have grim and grizzly failures to which to point. Some say it is the fault of the climate. Some attribute it to a want of the art element in the English character. For our own part, we are inclined to attribute it in the first place to our manipulation of lime, which is the opposite of the Italian mode, and then, secondly, to the consequent absence of the early and instructive training of the workman. It is when material grows ready to his hand that the native genius is duly fed from his cradle. Otherwise he has three chances out of four of being either starved, or converted into a merely mechanical workman. But be this as it may, the fact is that if we were to wait for free hand, or original, bold, and flowing decoration, we should have few buildings that would have any chance of being decorated at all. The very few men whose facile brushes would obey their hands, as do those of comparatively humble workmen in Italy, would not be able to make much impression on the acres of wall that it might be required to decorate. And the free hand work of the untrained workman has more of the grotesque than of any other element, and that by no means a pictorial grotesque.

We come, then, rather in spite of ourselves, to the conclusion that if colour decoration be desirable in any of our churches, the method which has been adopted in the case in question, viz., the use of stencil plates, for giving the outlines of patterns to be filled with colour, is in most cases a practical necessity. And in the present case there are medallions of angels, and figure-scenes in a sort of frieze, which are not altogether mechanical in their production; some of which though quaint, are not without a sort of suggestive beauty of their own.

The main idea of the decorations to which we call attention is that of accentuating the structural lines of the building by strong lines of colour,—not glaring, but laid in with a bold touch. Between the ribs, vertical and horizontal lines simulate, to a certain extent, masonry, viz., they do so in a conventional rather than in a servile manner. The joints of the imaginary stones ramify into foliated luxuriance. Over the east end windows, indeed, a deep red colour has been introduced, with the aim, or at least the effect, of representing ordinary brickwork. This might *per se* be criticised. But the whole progress of the work has been such as to show that a correct opinion can only be formed of it as an *ensemble*. The decorator has evidently felt his way, and the ornament produced one day has sometimes disappeared on another, because it did not accord with something else. Thus a pair of monolithic pillars of clunch, which were almost the most striking feature of the chancel in its original nakedness, had so poor, not to say grubby, an appearance when the scaffolding was removed, and the contrasts with the coloration of the roof become apparent, that the decorator has tinted the stone, and introduced bands with coloured roses, to the improvement, it must be confessed, of the general harmony.

Here, again, theory and practice clash. To paint or colour stone is to sacrifice a true, permanent, and often noble, material to a fictitious, transitory, and inferior mode of finish. That, we think, is a sound canon. But how if the stone, in its natural colour, afford so harsh a contrast to the tinted work as to ruin the harmony of the building? One man will reply "That shows that you are wrong in introducing colour at all." Perhaps that may be true; but that is not the question. Here we have decided on a coloured interior. It seems to follow that we must do violence to the theoretic canon, in face of actual facts, and colour stone, or fail of good effect.

It will be seen that these are not mere academic questions, or imaginary difficulties; but real practical dilemmas which turn up in the course of the execution of a work, and which are not to be solved by the simple application of a theoretic rule, but as to which it can only be said *solvitur ambulando*, and as such, observation from time to time has led us (we confess somewhat unexpectedly) to render justice to the taste of the artists and workmen of Messrs. Clayton & Bell, and to recommend those of our readers who have cases of the kind to settle, to pay a visit of inspection to their work.

And, after all, there is, perhaps, a broader view of the case to be taken than we have yet suggested. What is desired as the chief object of such a work as a fine chancel? Effect,—*ensemble*,—tone. Who, among the hundreds who worship in a church, is careful, or perhaps able, to criticise the details of its structure, let alone its decoration? But who is there, on the other hand, on whom the *ensemble* does not produce an effect? On some, no doubt, the effect produced, even by such a gorgeous and stately interior as that of the Church of the Annunzazione at Genoa, is much the same as that of a rag of red on a turkey-cock, or a scarlet cloak on a bull. But for them, be they right or wrong, we are not now writing. For others, we feel bound to admit, that the effect of the chancel in question, with its graver harmony of colour, as compared with the original nakedness of the greenish grey brickwork of the interior of the church, is a manifest and notable gain. Not the least advantage gained is the manner in which a more than questionable reredos of gilded wood, and windows of which the intention was, no doubt, better than the execution, have been toned down into happy obscurity.

One really excellent piece of workmanship is the choir screen of brown and white marble, which has replaced a somewhat unsightly dwarf stone wall, between the chancel and the nave. This screen is arranged in a series of niches, with stilted semicircular heads, in each of which a slight tracery of white marble is introduced, as if forming the frame-work of windows. Dwarf columns of green porphyry stand before the intermediate piers. The effect of the screen would, we think, have been every way superior if it had been pierced *au jour*. This, however, is a matter of opinion; but there can be no doubt that it is a fine piece of work as it is. Many, of course, will want to know why there should be a screen at all, and we certainly shall not deny their right to the inquiry. It is remarkable that the first effect produced by the erection of this screen was that it seemed to "kill" the pulpit, which is a graceful stone structure, with marble and porphyry dwarf columns, enriched by bas-reliefs, and which (at a due distance, and without criticism of the drawing of the figures) is a beautiful work. It is probable, however, that the extreme polish of the new marble had a temporary effect, which time will tone down. The decorators, moreover, have stained the stone steps since the erection of the screen, another of those bits of practice which one would condemn by anticipation, but which seem justified by effect. Hammered iron gates are in course of execution for the choir screen, in the hands of a local firm, who are sure to maintain some of the old English traditional skill in this excellent kind of workmanship. When that softening touch of time, which seems more rapidly to fall on churches than elsewhere, has passed over the chancel of St. Nicholas, we think it will be generally admired. At all events, we say to all would-be decorators,—Go and look at it.

A LOVER OF COLOUR.

A CHAPTER ON CHIMNEYS.

WITH the exception of the Great Pyramid of Egypt (Cheops) and the spires of the cathedrals of Strasburg and Cologne, the tallest buildings in the world are chimney-stalks. Nevertheless, the interest which many may take in chimneys will most likely rest not on their size, but upon their universality, upon their commonness and usefulness. Every one, be he who he may, with whatever grand historical personages he may be otherwise connected or disconnected, has relations more or less with some chimney-stalk or other.

Chimneys are the nostrils of a house, and we know how necessary to the life of any object is the breath of its nostrils. In Chambers's "Encyclopædia" it is stated that before chimneys assumed their present form these nostrils of the house were placed at the back of the fireplace, not far above the grate; the vent or flue was short, and turned at the top towards the outside of the wall, through which the smoke found its passage in slits made for the purpose. In those Mediæval times, smoke, not of cannon, might every day be observed issuing from the sides of the castle wall. Now the smoke invariably reaches the open air through perforated columns placed upon the top of the walls of the house. So that instead of looking like the nostrils of a building, the chimneys seem rather to occupy the place of ears, as on a horse's, zebra's, or lion's head. You can give expression to the look of a house bv them as in the case of the heads of these animals by the make of the ears. You can fix the character of a house by the arrangement and regulation of the height of the chimneys as much almost as by the order of the design of its front. For all that, comparatively little attention is paid to this part of the building; up among the chimneys is the last place we look for order or classification, or even for symmetry in a land or street of houses; and when we discover the elegant and symmetrical up there, we are as much surprised as when we find silver spoons in an ashpit. It is curious to observe that while in general it is thought requisite to have the end of all towering and pointed erections, finished ornamentally, the chimney-head should so frequently be left an exception to the rule. The pillar has its capital, the post its cap always,—the topmost concludes with a button; the spire is invariably crowned with a gilded vane or cross; the tower has a cope and pinnacles; the top of the buttress is turned to pomegranate. The chimney-head alone, with rare but honourable exceptions, concludes, even when otherwise elegant in itself, most generally with the old time-battered, weather-streaked, familiar, red tile pot or can.

Most people consider a "chimney hat" or "tile" an ugly thing on a man's head. I consider a brick can an equally ugly thing on the top of a chimney-head. It is especially ugly when the wind blows it over, and it falls, and hits somebody in the street.

Often these tile cans are hanging over to one side, like Willie with his wig agee. Some of them are high, some low; the more reputable are duplex, and have a long lower and short upper part; the less reputable are devoid of the top appanage: they have either lost it in scrimmages, or never possessed it. Sometimes two or three are piled up in a line, and the toppling figure they form seems ever ready for decline and fall. Sometimes you observe one which has been halved by accident, and which presents a broken and jagged edge to the sky. On rare occasions you may happen to come across one which has been honoured by having two or three upper portions shoved over it, like the old clothesman of caricature, with his multiplicity of hats, or the fashionable lady described by Goldsmith:—

> "Skill'd in no other art was she
> But dressing, patching, repartee,
> And, just as humour rose or fell,
> By turns a slattern or a belle.
> 'Tis true she dress'd with modern grace,
> Half-naked at a ball or race;
> But when at home, at board or bed,
> Five greasy nightcaps wrapp'd her head.
> Could so much beauty condescend
> To be a dull domestic friend?"

Sometimes one stands alone like a sentry. More frequently they are found clubbed together on a stack, like a row of the awkward squad, short and tall, lean and fat, high coloured and cadaverous; some in the attitude of attention, others standing at ease, veterans of the smoke and storm in broken rank and file.

It is no doubt the case that there is a class of old-fashioned and homely buildings the chimney-heads of which the old red tile pot suits, and which nothing else would suit so well. Let it remain and hold high holiday on the top of the thatched cottage and the country manse for ever and a day. But for town buildings, and for all mansions that make any attempt at architectural display, the red tile is an anomaly,—not in keeping; and some funnel of a different pattern, if not of different material, should be substituted for it. It is pleasant to observe that earthenware funnels of really elegant form have been introduced in some instances. There are other forms recently introduced which are not so elegant, and little bits of white or cream-coloured cylinders (like elephants' toes) are among the number which I cannot admire.

To what extent, in fine, are the chimney-heads to be treated ornamentally? Should they, in the general design, be made to occupy a conspicuous or only a subordinate place? Are they just to be made passable so as to escape criticism, or are they to be made notable, so that the eye may be attracted to them as an object to rest on? These are questions the architect may put to himself, and which he must answer according to his lights. It will always be safe for him, however, to put some tidy work upon them in preference to running over them in a slovenly way. When there are a number of heads to be placed on one building he should also ask whether they are to be placed at random, to suit convenience merely, or are to assume geometrical positions, and be placed as the points of a mathematical figure,—whether he will have them put up without due respect to the site or height of each other, or will have them arranged in order, say, like the couples in a dance. I have sometimes seen an old chimney placed so awkwardly that it seemed as superfluous as a third ear on the head or a sixth finger on the hand. The chimney-heads on an elegant buiding should, to use as a paraphrase words intended for another subject, "possess grace and naturalness, delicacy and strength, balance and order; they should combine freshness of conception with perfect accuracy of execution, and be both familiar and sprightly."

"The chimneys of Venice," says an acute observer, "are not the least remarkable part of her architecture, and no two are alike. There are many with a slender stem of, perhaps, a yard in length, and calyx-like top resembling a tulip; others almost precisely like the watch towers on the corners of ancient castle walls; others of strictly Gothic style; and some of Doric design and classical proportions. Occasionally there is one with such a slender stem and overgrown top, loaded with a redundancy of ornament, that it is the very insanity of a chimney. They catch the last rays of the setting sun, and reflect the opal glories of its tints."

The head of the chimney may be said to consist of four part,—the plinth or the base, the stalk or column, the cope or capital, and the funnel or chimney-pot. The inner and concealed parts of the chimney likewise may also be said to consist of four parts,—the fireplace, where the grate stands; the throat, immediately above that; the vent, or smoke-channel, which succeeds in the order of ascent; and the chimney-top, or lum-head, as it is termed in Scotch, which is the conclusion of the whole affair.

With regard to the *enceinte* of chimneys. It is better to have the chimneys of a house placed in the inner or partition walls than in the outer and carcass walls. There are two reasons for this. One is that they vent better. The hotter the sides of a chimney are the stronger the draught up it will be, and the chimney sides are kept hottest when in the inner walls of the house. The other reason is that heat is economised by having the chimneys in the partition walls. When the chimney is in the outer wall, the side towards the street or open air is generally very thin, sometimes not more than 4 in. thick, and a considerable portion of heat passes through this slender side into the open air. After a shower of rain that part of the gable of a house through which the chimney runs dries more rapidly than the other parts; this shows that the heat is coming through the side of the chimney and getting out of the house. When the chimney is situated in an inner wall, the heat radiates from it into the house on both sides.

Now that the practice of young sweeps riding through chimneys is discontinued, and there is no longer any demand for projections and roughness in their interiors to make stirrups for their little feet, the inner lining of chimneys should be smooth throughout. There should, moreover, be no abrupt turns, no knees or sudden bends, and no level reaches, but the smoke-channel should be made as easy, direct, and flowing as possible. The cross section of that channel should never be oblong or oval, for as the smoke inclines to circle in mounting the chimney, opportunity should be given to allow of it rising in this way; the cross section ought, therefore, either to be round, or square, or of some concentric polygonal figure.

It will not, and cannot be denied that many chimneys are defective, and do not fulfil their office as they should. Some smoke more regularly into the house than into the air; others have an occasional down-blast in certain acts of the wind. Some others cannot be made clean by any amount of sweeping, and when these are kitchen chimneys the auld wife's cakes are threatened with a deluge of soot and certain destruction, whenever she puts on the griddle to bake. If there comes a soft or thawing day, especially, the premonitory colliery drops never fail to come down upon the first griddleful, and splatch the cakes with black.

There are chimneys, again, which require fires like furnaces to rouse them up before they will vent at all.

Perhaps some one may remember being shown at night into a spacious but dingy bedroom, where the furniture had a pall-like look, and where, when the final bow was made, and he was left to himself, he saw that there was a new lighted fire in a large grate under a frowning mantlepiece. This fire, which consisted mostly of black coal, was flaring and smoking a deal, but there was little red in it. There was at the same time, he found, a cold draught moving across the room at the rate of fifteen miles an hour. The feeling of the atmosphere was raw and chill, and the visitor became shivery-shakery. The fire seemed to be drawing out the cold damp which always harboured in the corners of the apartment, and the visitor had left a room which was overheated with fire, light, and fumes. He gets into bed as quickly as he can, puts out the auxiliary light, and trusts to the company of the fire for relief. It proves but a false friend, casts a feeble light on the hangings, becomes less, but at last succumbs to that cold draught travelling across the room between the bed, and it flutters and flickers as if uncertain what to do,—flares up, and goes out.

The fact is, that a fire may be drowned out by having too much cold air violently forced upon it. Fire-places which are too large, grates which are too open, have the fault besides of allowing the air to play about everywhere but upon the point where it is wanted; blowers and newspapers held up in front of fireplaces correct this, and direct the air to the points where the fire is lighted.

When complaints are made of chimneys not venting, it should be borne in mind that the smoke goes out from the chimney-top into an uncertain, changeable, and sometimes tempestuous element. Lieut. Maury, in the "Physical Geography of the Sea," says,—"There are many abraiding surfaces, irregularities, &c., which produce a thousand eddies in the main stream of the atmosphere," and also, "Each valley, every mountain range, and local district, may be said to have its own peculiar system of calms, winds, storms, &c."

Count Rumford's assertion that every chimney can be made to vent perfectly, must be taken with some deductions. It is well understood that hills, buildings, and such like large objects, in the neighbourhood of a chimney, are apt to affect its venting. In certain acts of the wind they may direct the air obliquely upon the chimney, and with a dip downward, so that it is blown into the mouth of the chimney, and the smoke is driven back into the vent, like a man forced to eat his own words. Placing a slab above the mouth of the chimney may serve to correct this. Or, where the chimney and a building close to it are the same height, or nearly so, the wind which comes over the building, cutting across its ridge, comes straight and sharp as a razor along the mouth of the chimney, when it is blowing keen, slices away the smoke as it ventures out, and when blowing hard and all compact, it acts like a lid, off and on, and stops the mouth of the chimney. The cure for this, of course, is lengthening the chimney and raising it considerably higher than the adjoining building.

With regard to what is called back smoke, that is, smoke from one chimney getting into an adjacent chimney, and through it into the apartment connected with the first chimney, I am told that the routine is this. When a chimney is going, the draught in it is upward and skyward; but when a chimney is empty the draught is downward and houseward, the heat of the apartment in the last case causing the cold outer air to gravitate down the cold chimney. When there are two chimneys standing side by side, one of which is going, while the other is empty, the smoke from the going chimney is at times, in certain acts of the wind, blown across the mouth of the empty chimney, and being caught by the current of cold air running down that chimney, is carried with it into the apartment with which it is connected. The way to cure this and get rid of back smoke is to seal up the empty chimney. In old and frail houses, where the chimneys are shaken, back smoke may be caused by smoke passing from one chimney to another through rifts and chinks in the party-wall between them. There is no cure for this,—the disease in this, case, like Mr. Pecksniff's complaint, is chronic.

It may not be out of place to sum up by stating the three approved methods of curing chimneys which do not vent well, applied by Count Rumford and all smoke-doctors since his time. The first is lengthening the chimney at the top, this increases the quantity of heated air in the chimney, and gives more power or head by increasing the difference between the weight of the air per foot, in and outside of it; the second is contracting the chimney at the throat: this increases the speed with which the heated air passes through it, and gives a heightened initial velocity to the smoke when beginning its course up the chimney. The third is when there is a deficiency of air in the apartment to feed the flame and blow up the fire, putting ventilators into the sides of the apartment, or into the windows or doors.

This imperfect chapter will indicate in a small degree how important for comfort the right construction of chimneys is, and how neatly and correctly all these parts should be built from bottom to top.

W. Y. B.

FROM EDINBURGH.

IN our last notice regarding the restoration of St. Giles's Cathedral we referred to the circumstance that no plaster had been used in the nave, as had been the case in the choir. Dr. Chambers has intimated his intention of bringing the choir into unison with the nave, by substituting stone where plaster is used, which will impart a thorough and substantial aspect to the whole interior. The only portion of the walls which will then be left plastered will be the Albany Chapel. A beginning has been made with the new west doorway, and Dr. Chambers has stated his wish to erect a chapter-house, to the east of the south transept. These additions will bring into prominence the poor character of the rest of the exterior. Dr. Chambers has done much and paid much for the restoration of the building, and it is to be hoped that some others may follow up the generosity he has displayed, by thoroughly restoring the whole exterior.

Several years ago a Mr. Ross presented a fountain to the city, which has been placed in West Princes-street Gardens. His widow, who died recently, has left a bequest of 1,500*l.* towards the formation of a covered rock garden and fernery in the same garden. Mr. Morham, the city architect, has prepared designs for the proposed erection.

"The drawing shows a series of three dome-shaped buildings, the central and largest of which is 60 ft. in diameter. The smaller ones, connected with the central building by corridors, 32 ft. in length by 25 ft. in width, take the shape of projecting wings of elongated form, the front elevation of each being domed so as to preserve the general character of the design. The width of the wings will be 37 ft., and the height from the level of the garden 30 ft. The central house will be 47 ft. high. The superstructure, built of iron and glass, will have a frontage of 200 ft.; and it is proposed to place it at the foot of the bank at the east end of the northern section of the west garden, the central portion forming an effective termination for the principal walk. The rockery in this part of the house will take the form of a hollow basin or grotto with winding paths, caverns, recesses, and rugged projections studded with ferns and other suitable plants, the rockwork reaching to a height of 15 ft. One advantage of the design is, that it could be carried out in sections as circumstances permitted, if that should be regarded as desirable."

The President of the Royal Scottish Academy (Sir William Fettes Douglas) has inserted in the *Scotsman* a vigorous protest against the erection of a structure of this kind in such a situation. With this protest we heartily concur. The proposed structure is similar to the Winter Garden for which designs were exhibited a good number of years ago, and which we pointed out to be incongruous with the surroundings. No structures of any kind can add to the beauty of the valley, and a structure of glass and iron in the proximity of the Castle rock would be simply abominable. If the building is to be erected the Meadows would be a suitable place for it; but if the terms of the donation are imperative as to site, the gift should be rejected.

The North British Railway Company have erected a new goods-shed to the south-east of the North Bridge, and the company have asked the permission of the town council to bridge over a part of Cranston-street with a view to improving their communication southward. The effect of this would be to lengthen, in a southerly direction, the subway connecting this portion of the city with the Low Calton. The committee of council, it is understood, are favourable to the request of the company being acceded to, subject to certain conditions regarding the lighting, &c., of the portion to be added to the subway. At the same time the opportunity is to be taken of pressing on the notice of the company the desirability of forming a new access to the Waverley Station by constructing a light footbridge from Jeffrey-street to the open platform behind the Post-office. The bridge would be carried across the railway on light iron pillars, and be about 500 ft. in length.

A new hotel is to be erected at the north-west angle of Prince's-street and St. Andrew-street, from designs by Messrs. Macgibbon & Ross. The elevations were so bald and unattractive that the authorities remonstrated against their being carried out on so important a site. Unfortunately there is not power to prevent the erection of a building of bad design æsthetically, if it is satisfactory in other respects.

The *Scotsman* has commented upon some startling revelations as to the way in which several prominent members of the Town Council were bribed by the Edinburgh Tramway Company, and gives a list of the persons bribed, which includes an ex-Lord Provost, who is stated to have received 80*l.*; five bailies, who are said to have received from 69*l.* to 306*l.* each, and five councillors, who, it is alleged, were paid sums varying from 15*l.* to 322*l.* each. Our contemporary says that in modern municipal annals there is no story more shameful than that of the way in which the interests of Edinburgh were disregarded, and the funds of a private company taken by public men in furtherance of what was a game of speculation.

NEW HOSPITALS.

Eastbourne.—On the 5th inst. H.R.H. the Princess Christian laid the foundation-stone of the Princess Alice Memorial Hospital. The late Princess Alice spent a portion of the autumn preceding her much-lamented death in Eastbourne, and, soon after the sad news of her decease was received, a public meeting of the inhabitants of the town was called, and a decision was arrived at, to erect a hospital to her memory on the Upperton Estate. The cost of the building will be about 5,000*l.*, of which more than 3,000*l.* have already been subscribed. The hospital, which will be in what is called "the Queen Anne style" of architecture, will consist of three blocks connected by corridors. On the ground-floor of the central block will be surgery and operating-rooms, the housekeeper's room, hall, kitchen, scullery, porter's room, larder, and pantry. At the rear will be a large yard with the usual offices, and on the first floor of this portion of the building there will be bedrooms for the nurses. The wings on either side will contain respectively the men's and women's wards, the accommodation provided in each being six beds. These wings, which will consist of only the ground-floor, will be capable of extension should necessity arise. The entire length of the building will be 164 ft. and its width 82 ft. It is contemplated that the hospital, the contractor for which is Mr. W. Gregar, of Stratford, will be completed in March next. The architect is Mr. T. W. Cutler, of Queen's-square, Bloomsbury. The site, which is about an acre in extent, was given by Mr. C. Davies Gilbert.

Birmingham.—Operations have been commenced for building a new hospital at the corner of Church-street and Edmund-street, in connexion with the Birmingham and Midland Eye Hospital, the present building in Temple-row being inadequate for the growing requirements of the institution. Mr. W. Robinson, contractor, is carrying out the work, from the designs of Messrs. Payne & Talbot, the architects. The building will be, as regards style, in a modification of "Queen Anne," and it will be executed in dark red brick, with light-coloured stone dressings. In the main features the architects have followed the plan adopted in the Paris hospitals. The principal entrance, which will be very ornate, will be in Church-street, and will lead into a large entrance-hall, and thence into a corridor and staircase-hall. From the corridor a double stone staircase will rise to the top of the building. The whole of the corridors will have fireproof floors, and the wards will be laid with teak. In the basement there will be the wood and coal stores, a room for the preservation of the books, a mortuary, a bath-room, and also a leech-room. The ground-floor will be mainly taken up with the out-patient department, comprising a large waiting-room, 75 ft. by 35 ft., ample for the accommodation of 200 people; a consulting-room, two minor operation-rooms, surgeon's rooms, secretary's room, and dining-room, besides the entrance-hall previously mentioned. On the first floor there will be a suite of day-rooms, including a smoke-room, on one side for the men, and a suite of day-rooms for the women on the other side. Rooms for the house-surgeon and matron will be situated in the central block. The men's sleeping dormitory is located on this floor, and there will also be a ward in the centre that can be devoted to the use of men or women, as the occasion may arise. On the next floor there will be sundry sleeping wards, and also an operating-room well lighted from the north-east. The kitchens, nurses' rooms, and offices will be in the centre of the block at the top of the house, and will be reached by means of two lifts in communication with the stores-receiving room in the basement; while a third lift will communicate with the dispensary for the conveyance of medicines. The building will form three sides of a quadrangle, and will cover 1,080 yards of land. It is estimated that the new hospital will involve an outlay of about 20,000*l.* Beds will be provided in the new building for sixty-five patients instead of forty-four, as in the present institution.

Hope, near Salford.—The new infirmary which has been built at Hope for the accommodation of the sick and infirm poor of the Salford Union is approaching completion, and will be opened in about a month from the present time. The site of the building is about 310 yards in length and 85 yards in width, bounded on the eastern side by an intended street 12 yards in width, and on the southern side by a carriage drive of the same width. The hospital is designed on the pavilion principle, and a continuous corridor 850 ft. long and 10 ft. wide connects the several pavilion blocks with each other and with the administrative block, which latter is placed in the centre so as to be easy of access from the several departments. This corridor is enclosed on the ground-floor level, but on the two upper stories it forms an open gangway for communication between the several blocks. The sides are protected by parapet walls and iron palisading, and in favourable weather will provide a pleasant resort for patients sufficiently convalescent to enjoy the fresh air and a view of the surrounding scenery, which at this point is perhaps in many respects the best to be found in such close proximity to Manchester. All the corridors and gangways are fireproof, the floors being formed of concrete carried on wrought-iron beams and rolled iron joists. Fireproof construction is also adopted in the staircases, which are all of solid Yorkshire stone. In connexion with each of the two double-pavilion blocks, which together will contain 400 patients, an additional staircase of fireproof construction is provided for occasional use as another means of escape in the event of fire or panic. In connexion with these staircases there are spacious open-air balconies on every floor level for the use of the semi-convalescent old men and women patients, for whose use the double wards are intended. The single-pavilion blocks are four in number, each designed to accommodate 100 patients. The eastern or entrance block is appropriated to probationary and other patients of a peculiar type, and is sub-divided on every floor into what are practically separate hospitals. This block, which is approached by a covered carriage-way for the convenient reception of patients in all sorts of weather, provides for eighty patients, and also contains a residence for the head porter and his wife, a register office for the adjacent weighing machine, and store-rooms for the patients' own clothing. In connexion with the wards there are twenty-four capacious day-rooms placed to the south, with separate lavatories and other conveniences. The wards provide an average of 80 superficial feet of floor space and 1,000 cubic feet of air or breathing space for each patient. As there is a considerable proportion of Roman Catholic patients among the paupers of the Salford Union, a separate chapel is provided for them in addition to that provided for the Protestant section of the inmates. The central administrative block provides on the ground-floor level a large hall, which can be used as a winter garden or for recreation purposes, the whole length and breadth of the inner area, and about 45 ft. in height; large kitchen, bakery, scullery, general store-room, nurses' dining-room, servants' dining-room, matron's room and a series of store-rooms for her use, storekeeper's residence and other rooms, medical officers' consulting-room and waiting-room, Board-room, cloak-room, and waiting-room, clerk's office, porter's room, dispensary, and drug-store; and in the centre a spacious entrance-hall, surmounted by a clock-tower rising to a height of 100 ft., having a portico in front, approached by a wide flight of steps from the carriage drive. The rooms on the first and second floors of the administrative block are appropriated to the use of the medical officer, assistant medical officer, matron, nurses, servants, and other officials. The laundry department is situated immediately behind the administrative block, and is separated from it by a wide covered way, having a glass roof as a protection to tradesmen and others when delivering goods, and to the laundresses and servants passing between the two departments with linen, &c.

The wards and day-rooms are all warmed by the patent Manchester grates of Mr. E. H. Shorland, which, when in action, keep up a copious supply of warmed fresh air, drawn directly from the outside, and at the same time extract the vitiated or partly vitiated internal atmosphere, to keep up the combustion of the coal fire. Supplementary extraction-shafts are also provided. The architect of the building is Mr. Lawrence Booth, F.R.I.B.A., of King-street, Manchester, under whose supervision it has been erected. The contract for the execution of the work was let to Mr. William Southern, of Salford, whose tender (43,480*l.*) was the lowest of those submitted for the complete building contract.

THE RESTORATION OF MANCHESTER CATHEDRAL.

A meeting was held on Monday morning in the Manchester Cathedral Library, to hear a report from Mr. Crowther, architect, on the condition of the nave of the cathedral, and to take counsel as to the steps which should be adopted for its restoration. The Bishop of Manchester presided.

Mr. Crowther's report contained the following passages:—

> The renovation of the exterior of the church has been in great part accomplished, but little, comparatively, has been done towards the restoration of the interior of the fabric, of which that of the nave is now in progress. Early in the present century the then guardians of the fabric were advised that the whole of the pier arches of the nave and aisles, the great chancel arch, and the superincumbent masonry, including the clearstory, were in so bad a state of dilapidation from the combined effects of time and rough usage as to need extensive reparation, improvement, and strengthening; and the authorities, with the best intentions, entrusted the execution of this important work to the incompetent persons who had reported on it. It will scarcely be believed that the initiative step taken by these Iconoclasts was to cut away the delicately-moulded capitals and bases of the columns and bay-shafts, the traceried spandrels over the arches, and the Tudor-leaf cresting of the string-course surmounting them, and roughly hew all the remaining surfaces of the masonry, including the finely-moulded columns and arches, preparatory to coating the whole with Roman cement. A more recklessly-dangerous piece of spoliation it is impossible to conceive, for, so far from "repairing, improving, and strengthening" the structure, it was materially weakened by the process, in some vital portions of it to a most dangerous extent. For example, on carefully removing the cement coating from the two most westerly bays on the north side, it was found that the springing stones of the arches immediately resting on the columns had been so much cut away as to leave an area of little more than 14 in. square of solid stone to carry the enormous superincumbent load. A careful calculation of the load which was borne by these stones shows that their reduced sectional area was barely sufficient to sustain it, with the fabric in a state of absolute rest and free from any lateral strain. The wonder, therefore, is that during violent storms of wind, such as that of the great tornado of January, 1839, when the pressure of the wind was equal to 50 lb. on the square foot, and the lofty clearstory must of necessity have been oscillating from so enormous a lateral strain, the whole structure of the nave did not collapse. There can be no doubt that the remaining springers have been cut away to the same extent in order to provide for the cement coating. With equally ignorant recklessness the columns themselves, and especially the bases sustaining them, had been mercilessly cut away, and one of the latter, that, viz., of the most easterly column, was patched up with brick. The original architecture of these arcades was of great beauty and delicacy, and the work was so admirably executed and put together that although of unusual lightness it was quite adequate to its static requirements, and to withstand the effects of time. But the gifted architect who designed this noble church so constructed the fabric and its various details that not a cubic foot of stone more than necessary was used in the work, especially in this portion of it. A practised eye will at once detect this feature of the construction on examining the masonry of the columns and arches which have been stripped of the cement coating, and fully appreciate the danger to the fabric occasioned by the reckless cutting away of the stonework in order to form a ground and key for the cement coating. . . . . The chancel arch with its great piers forming the eastern termination of the nave has been, if possible, more grievously mutilated than the lateral arcades, for the masonry of the piers, which contain winding staircases leading to the roof,—has been in parts reduced to a thickness of 3 in. only,—a thickness miserably inadequate to the weight it carries. The arch itself has met with even worse usage. Iron hooks have been driven into the joints of the voussoirs, on the western or nave side, and on these a rim of brickwork was constructed. The spandrels and wall above the brick arch were then lined with wooden studs, lathed and plastered, and the whole of the surfaces covered with panelled tracery of meretricious design, worked in Roman cement. The masonry of the arch and heavy wall above it has been seriously shaken and disruptured by the process of driving in the iron hooks, and the stonework has settled downward in consequence,—depressing the arch about 5 in. or 6 in. from its original contour. There are sufficient remains of the arch mouldings and general design of the whole original composition for the exact restoration of the chancel arch and piers; and, happily, the latter, below the level of the ancient rood loft, have not been coated with cement, and are in a nearly perfect condition. . . . . On removing the external and traceried lining of the tie-beam of the most westerly roof principal, I was much startled to find that the tie-beam was completely worm-eaten through three-fourths of its sectional area, and that it was no longer performing its office as a tie, but was simply suspended *in situ* by the principal rafters above, and the whole weight of the principal itself and of the most westerly bay of the roof was sustained by the mortising of the rafters into the king-post in the centre, and at the ends by the wall-posts and curved struts. . . . . The roof appears to have been extensively repaired shortly before the ceiling was painted, some thirty-five years since, for the purlins are suspended by wrought-iron straps to the principals, and the transverse ribs in like manner to the purlins, from which it would appear that at that time the tenons of the framing were found to be so decayed as to need the help of the straps for their support. The ends of the tie-beams of this principal do not bed directly on the clearstory walls, but on a strong oak corbel piece bedded on the masonry, and projecting about 2 ft. into the nave, and into this corbel piece the head of the wall-posts is framed. I cannot confidently say at present whether or no this is the original construction; but it appears to be so from the circumstance that a portion of the traceried spandrel of the curved strut is worked upon it. . . . So far as I can at present judge, the plain foundation of the principals will chiefly have to be replaced by new timbers on which the ancient castings and enrichments, so far as they are sound, can be fixed as heretofore, and on this assumption, after making sufficient allowance for renewing decayed portions of the latter, I have formed the following estimate:—Estimate of cost of restoring the roof over the nave: No. 7 principals, at 125*l.*, 875*l.*; No. 6 bays, at 150*l.*, 900*l.*; removing the lead and roof timbers, 85*l.*; shoring up and scaffolding, 120*l.*; relaying the lead and gutters, &c., 80*l.*; total, 2,060*l.*

The Dean of Manchester said that the responsibility in this matter rested entirely with the parishioners of Manchester, and with the wardens as their representatives. It was quite erroneous to suppose that the revenues of the Chapter estates could in any way be used for the sustentation of that portion of the fabric which was in the custody of the wardens, and which was the property of the parishioners.

Mr. G. Milner, speaking on behalf of the wardens, said that this restoration had been gradually forced upon them, and the further they went in their examination the clearer it became that immediate action was necessary. He was strongly in favour of a complete examination of the fabric, and a complete restoration

Mr. Lings (the comptroller), Mr. Thomas Rose, and the Rev. H. Cottam (St. Mary's, Crumpsall) having spoken, the following resolution was moved by Mr. G. Milner, seconded by Mr. J. W. Maclure, and unanimously passed:—

> "That this meeting, having heard the report of Mr. Crowther as to the repairs required in that portion of the fabric of the cathedral for the maintenance of which the parishioners of Manchester are liable, is convinced that such repairs are imperatively and immediately needed, but before asking the public for subscriptions request Mr. Crowther to prepare a full report as to its existing condition, and to furnish an estimate of the probable cost of a complete restoration of the same."

ST. JOSEPH'S (R.C.) CHURCH, BRIDGWATER.

The newly-built Catholic church in Binford-place, Bridgwater, is now completed, and has just been formally opened by the Rev. W. J. H. Clifford, R.C. Bishop of Clifton.

It may be remembered that the newly-built church has been erected at the expense of Mr. Philip Hewett, a native of Langport, who has been residing for several years past at Boulogne, and who expressed his willingness some months ago to Mr. J. Ruscombe Poole, of Bridgwater, to expend a sum of something like 1,200*l.* for the purpose, a donation of 1,000*l.* being given by him at the same time to the funds of the Bridgwater Infirmary.

The new church consists of a sanctuary or chancel, nave, aisle, side chapel, porch, organ-gallery, and sacristy. It is built of brick, with Bath stone dressings, and covered with Bridgewater tiles, from the designs and under the superintendence of the Rev. A. J. C. Scoles, the priest at present in Bridgwater. Early Decorated was the style chosen, which necessitated a simple form of construction, the beauty of which consists in its proportion and general outline. The entrance is through a doorway of solid construction. The nave has three double lancet windows, the chancel having a clearstory. The façade to the river is more imposing, with its three well-proportioned windows, relieved by columns and moulded arches. The wall between the chancel and nave is surmounted by a turret, containing the "sanctus" bell. The end of every gable is surmounted by a boldly-outlined cross. The east end has three windows filled with stained glass to the memory of one of the sons of Mr. York, its donor. In the north aisle a stained-glass window, representing the death of the patron saint (St. Joseph) has been erected by the priest (the Rev. A. J. C. Scoles) in memory of his late father, these stained windows being the workmanship of Messrs. Lavers, Barraud, & Westlake, of London. The altar is of stone, relieved by four marble columns, dividing three handsomely-moulded quatrefoil panels, to be afterwards filled with sculpture, representing the three great sacrifices, namely,—of Melchizedek, the Paschal Lamb, and that of the Cross. Mr. J. Kitch, of Bridgwater, is the builder; Messrs. Bradfield & Sons, of Bridgwater, the masons; and Mr. A. B. Wall, of Cheltenham, has executed the carving and canopies.

NEWCASTLE-UPON-TYNE.

Newcastle races have this year been transferred from the Town Moor to High Gosforth Park. The beautiful estate was acquired some eighteen months ago by a limited liability company, and comprises upwards of 800 acres, together with the mansion-house erected by Mr. Charles Brandling, M.P., about the year 1760. The latter occupies a commanding situation overlooking the new race and steeplechase courses, and consists mainly of a centre building and two wings, in the Classical style of the period of its execution. The new stand has been erected partly in front of the hall, and partly to the east of it. The stand, although continuous, has private subdivisions for club members and for the stewards, but the grand stand occupies by far the largest portion. The whole is 250 ft. long by 47 ft. broad, is capable of accommodating nearly 5,000 people, and consists of a series of terraces or broad steps extending from the surface of the lawn up to the level of the saloon windows, in front of which is a broad balcony. The front rooms on the top floor of the hall have been allotted as private boxes, each having a large balcony forming an upper tier to that portion of the stand in front of the hall. These and a considerable breadth of the lower stand are roofed in, the covering of the front slope being of glass, and the framing of iron and wood, carried upon ornamental metal columns and brackets.

To the east of the grand stand and its inclosure is the second-class inclosure, containing a stand which originally stood on Newcastle Racecourse. This has been removed therefrom and re-erected here in a modified form, so that its steps begin to ascend immediately from the surface of the lawn, in a similar way to the new grand stand. It will accommodate upwards of 2,000 people. In this inclosure is telegraph-office for the reception and delivery of messages from and to its *habitués*, or the public outside the inclosures.

The contractor for the grand stand and works in connexion with the mansion-house is Mr. George Waddell, of Edinburgh; for the second-class stand the contractor is Mr. John Irving, of Newcastle; and for the saddling-shed, &c., Messrs. Broomhead & Keswick, of Newcastle, are the contractors. The architects for the whole of the works are Messrs. Sept. Oswald & Son, of Newcastle, and the clerk of works is Mr. James Eadie, of Blaydon.

DOCKS AND HARBOURS.

The Clyde.—At a meeting of the Clyde Navigation Trust on the 4th inst., the Committee on New Works presented their minutes, recommending to the trustees that the entrance of the proposed Graving Dock No. 2, and the sill, be constructed by the trustees' own *employés*, under the direction and supervision of Mr. Deas, the engineer,—the depth on the sill to be 22 ft. 10 in. at high water, being the depth of the present dock, and the dock to be in all respects as commodious as the present dock, in so far as that shall be found to be practicable in carrying out the works. It was further recommended that the engineer be authorised to raise the sides of the present dock to the extent of 2 ft., as proposed by him in his report, and that he proceed with the execution of this work forthwith. The cost of the proposed dock is stated at 100,000*l.* The trustees, in the course of the discussion which arose on the report of the committee, differed in opinion as to whether the site and depth of the proposed dock were adequate to the growing needs of shipping, and on the motion of the Lord Provost, the further consideration of the matter was adjourned, in order that Mr. Bateman or some other eminent engineer might be consulted.

Dover.—The Bill which the Dover Harbour Board are endeavouring to obtain during the present Session of Parliament for the construction of a deep-sea harbour at Dover is very comprehensive in its character. The present Admiralty pier will form the western arm of the harbour, and, according to the plans, it is proposed to lengthen this by extending it eastwards for a distance of 550 ft. The eastward limit of the harbour will be formed by a pier or breakwater running out from under the cliffs beyond the Castle to a distance extending in a southward direction for about 1,000 ft., the space between the two piers being thus about a mile. Both these piers will converge slightly, and, between them, marking off the entire limits of the harbour, will be a large breakwater. This breakwater will begin in the bed of the sea, about 800 ft. from the termination of the eastern arm of the harbour, and extend in a southerly direction for about 1,200 ft., continuing in a south-westerly direction for about 2,100 ft., to within 600 ft. of the western arm. Provision is, therefore, made for two outlets of 600 ft. and 800 ft. respectively. The harbour will thus enclose nearly the whole of the bay, which is sheltered by the cliffs.

Burntisland.—At the monthly meeting of the Burntisland Harbour Commission, held on the 4th inst., the tender submitted by Mr. P. Penney, Burntisland, for an alteration of the West Breakwater point, which will enlarge the entrance to 150 ft., amounting to 1,061*l.* 13s., was accepted. Plans for the further widening and deepening of the entrance channel were submitted, and a report by Messrs. Meek & Son, C.E., Edinburgh, on the matter was submitted, and Mr. Henderson, resident engineer, was instructed to procure tenders for having the work accomplished in accordance with his plans.

Tilbury.—On Saturday last a large number of gentlemen proceeded to Tilbury on the invitation of the chairman and directors of the East and West India Dock Company to witness the cutting of the first turf on the site of the new docks, the construction of which has just been authorised by the Legislature. The East and West India Docks Company's present system comprises the East India, the West India, and the South-west India Docks at Blackwall, but powers have now been obtained for the construction of deep-water docks at Tilbury, opposite Gravesend, designed to accommodate the lines of large steamships engaged in the West India, China, colonial, and American trades. "Avoiding," to quote a semi-official account of the scheme, "the sinuous and shallow reaches of the Thames above Gravesend, towage, and pilotage, and enjoying exemption from the London fogs and the consequent risk and detention, the site selected offers exceptional facilities to shipowners, as vessels of the deepest draught will enter or leave these docks at any hour, thus rendering the port of London independent of tides." The new docks will, it appears, have a depth of 35 ft. below high-water mark of ordinary spring tides, and include 15,000 lineal feet of quay berths, and they will be approached by an open tidal basin having 43 ft. depth of water. Passenger communication between Fenchurch-street Station and the new dock station is to occupy about thirty-five minutes, and there are to be frequent trains; added to which provision is to be made for enabling passengers and their baggage to be landed or embarked direct at any time of tide. Further, there are to be special landing jetties, wharfs, lairage, and abattoirs, affording facilities for the live cattle trade. There will be four dry docks, with a total length of 1,730 ft., two having a minimum width at the floor of 70 ft., the sills being 32 ft. below high-water mark, and two with 60 ft. width at the floor with sills 27 ft. below high-water mark. The larger of the dry docks will also afford an alternative entrance from the basin into the main and branch docks, the necessity being thus avoided of relying solely on a single passage lock. There is to be an improved system of coaling large steamers simultaneously from both sides; a powerful floating derrick and shears having a lifting capacity of 100 tons will be erected; and for all the purposes in view the company have acquired 460 acres of land. The works have been designed by the company's engineer, Mr. Manning; and the contractors, Messrs. Kirk & Randall, of Woolwich, have undertaken to complete their task within two years and a half. The ceremony of cutting the sod was performed by the chairman of the company, Mr. H. H Dobrée, who, in subsequently proposing "The East and West India Docks Company, and success to their new work," after giving a brief sketch of the company's history from its formation in 1795 down to the present time, said that when the new scheme had been fully laid before them the directors had no hesitation in recommending it to the shareholders, its adoption being necessary for their own protection. He added that they now felt sure of its success; that they had gone into the estimates most carefully; that they had ample capital for beginning the work, having 250,000*l.* in hand; and that they had no doubt that they would be able to raise the money required to complete the works thoroughly.

COST OF THE ELECTRIC LIGHT.

Mr. Alexander Peebles, one of the architect-members of the Court of Common Council, recalls attention to the fact that at a recent meeting of the Commissioners of Sewers, a report of the Streets Committee upon electric lighting, accompanied by an abstract of tenders which they had received for its installation in four districts of this City, was brought up, read, and ordered to be printed and circulated. As some figures there mentioned have been reported in organs of the press, and might be misunderstood, he thinks the subject may be deemed of sufficient importance to publish the following analysis and remarks, based upon the reports referred to. They are now before the public, and he considers himself at liberty to make this communication.

For obvious reasons he omits the names of the firms whose tenders he quotes, which are placed in sequence according to their amount, and so numbered:—

Statement showing the Comparative Cost of Electric and Gas Light (One Year).

District No. 1, comprising Newgate-street, Giltspur-street, Smithfield (south-east and north-east sides), Long-lane, Aldersgate-street (from Barbican to St. Martin's-le-Grand), and St. Martin's-le-Grand. Estimated annual cost of present gas-lighting, about 551*l.*, given by the Engineer to the Commission for each of the four districts. For lighting this district by electricity, eight tenders were received, the three lowest being as follow:—6th, 560*l.*, or nearly 1¾ per cent. more than gas; 7th, 520*l.*, or fully 5 per cent. less than gas; 8th, 498*l.*, or nearly 10 per cent. less than gas.

District No. 2, comprising Threadneedle-street (from front of Royal Exchange to Old Broad-street), Old Broad-street, New Broad-street (from Liverpool-street to London-wall), Liverpool-street (from New Broad-street to Bishopsgate-street), Bishopsgate-street (from Liverpool-street to Cornhill), and Cornhill. Estimated annual cost of present gas-lighting, about 363*l.* For lighting this district by electricity, seven tenders were received, the three lowest being as follow:—5th, 560*l.*, or fully 54 per cent. more than gas; 6th, 410*l.*, or fully 11 per cent. more than gas; 7th, 395*l.*, or fully 9 per cent. more than gas.

District No. 3, comprising Leadenhall-street, Aldgate, Aldgate High-street, Fenchurch-street, and Lombard-street. Estimated annual cost of present gas-lighting, about 341*l.* For lighting this district by electricity, seven tenders were received, the three lowest being as follow:—5th, 560*l.*, or fully 64 per cent. more than gas; 6th, 390*l.*, or fully 14 per cent. more than gas; 7th, 380*l.*, or fully 11 per cent. more than gas.

District No. 4, comprising Queen-street (between Queen Victoria-street and Cheapside), Cheapside (between King-street and Poultry), King-street, Guildhall-yard, Poultry, Mansion House-street, Royal Exchange (open space in front of), King William-street, Adelaide-place, and London Bridge.—Estimated annual cost of present gas-lighting, about 612*l.*; for lighting this district by electricity, seven tenders were received, the three lowest being as follow:—5th, 720*l.*, or 17½ per cent. more than gas; 6th, 620*l.*, or 1¼ per cent. more than gas; 7th, 590*l.*, or 3½ per cent. less than gas.

Upon adding together the estimated annual cost of the present gas-light in these districts, it amounts to 1,867*l.*, while the four lowest tenders for the electric light amount to 1,863*l.*, but in this comparison gas has had the advantage of all the improvements in its manufacture which have been discovered since its introduction, and it is generally understood the gas companies do not regard street lighting as a source of profit, while electric lighting is, comparatively speaking, in its infancy, and in these tenders street lighting is alone included.

In the sums mentioned at this meeting as the cost of electric lighting for one year was included the cost of installation and the removal of the whole apparatus at the end of the year, together with the restoration of the streets, lamp-posts, and gas system; items which obviously should not be charged to this light while instituting comparisons, although interest upon capital and an allowance for depreciation and tear and wear should be made, and in the following statement I have added ten per cent. per annum for these items; but inasmuch as the cost of installation is unduly increased by the charges for removal of the electric apparatus and the restoration of gas, I imagine these annual charges would include thirteen per cent. or more upon the cost of installation.

Statement showing the Cost of Electric Light, including Interest and Depreciation of Plant for One Year.

No. 1 *District.*—6th, cost of electric light, 560*l.*; add 10 per cent. upon cost of plant = 739*l.*, or fully 34 per cent. more than gas; 7th, cost of electric light, 520*l.*, add 10 per cent. upon cost of plant = 868*l.*, or fully 57 per cent. more than gas; 8th, cost of electric light, 498*l.*, add 10 per cent. upon cost of plant = 837*l.*, or fully 51¾ per cent. more than gas.

No. 2 *District.*—5th, cost of electric light, 560*l.*, add 10 per cent. upon cost of plant = 739*l.*, or fully 103 per cent. more than gas; 6th, cost of electric light, 410*l.*, add 10 per cent. upon cost of plant = 796*l.*, or fully 117 per cent. more than gas; 7th, cost of electric light, 395*l.*, add 10 per cent. upon cost of plant = 775*l.*, or fully 113 per cent. more than gas.

No. 3 *District.*—5th, cost of electric light, 560*l.*, add 10 per cent. upon cost of plant = 751*l.*, or fully 120 per cent. more than gas; 6th, cost of electric light, 390*l.*, add 10 per cent. upon cost of plant = 707*l.*, or fully 107 per cent. more than gas; 7th, cost of electric light, 380*l.*, add 10 per cent. upon cost of plant = 690*l.*, or less than 103*l.* per cent. more than gas.

No. 4 *District.*—5th, cost of electric light, 720*l.*, add 10 per cent. upon cost of plant = 940*l.*, or fully 53 per cent. more than gas; 6th, cost of electric light, 620*l.*, add 10 per cent. upon cost of plant = 918*l.*, or fully 50 per cent. more than gas; 7th, cost, of electric light, 590*l.*, add 10 per cent. upon cost of plant = 880*l.*, or nearly 44 per cent. more than gas.

In considering the relative cost of the two lights, the greatly-increased quantity and superior quality of the electric must be borne in mind.

Fire at a Builder's.—At an early hour on Sunday morning last a fire was discovered on the premises of Messrs. Dodds & Robb, builders, Brunswick-yard, No. 124, City-road. The men left work at twelve o'clock on Saturday, when the place was reported as safe, and at the time of the outbreak, which cannot be accounted for, there was no one in the building. The building where the fire originated consisted of two floors, about 70 ft. by 60 ft., and in the end it was all but burned out, and the roof entirely destroyed. Messrs. Dodds & Robb were insured. The fire extended to several other properties.

OBITUARY.

Mr. Hablot Knight Browne, an artist more widely known as "Phiz," died at Hove, Brighton, on Saturday last. Born in 1815, at an early age he obtained a reputation for his spirited caricatures and comic sketches, and in 1835 he succeeded Mr. Seymour as the illustrator of "Pickwick." He afterwards illustrated most of the works of Charles Dickens, and contributed graphic illustrations to the novels of Charles Lever, Ainsworth, and to other works.

Mr. Charles Heath Wilson died at Florence on the 3rd inst., in his seventy-third year. He was, for a number of years, head-master in the Glasgow School of Art, and to his exertions the success which attended its earlier years was, to no small extent due. A man of high culture and fine artistic taste, Mr. Wilson took a deep interest in everything having for its object to beautify and adorn the city; in particular, he exerted himself greatly in connexion with the scheme which resulted in the introduction of stained-glass windows into the cathedral.

MONUMENTAL.

WE understand that a memorial in alto-relievo, the work of Mr. J. Forsyth, will shortly be placed in St. Paul's Cathedral to commemorate the officers and men of the 7th Royal Fusiliers who fell in the recent campaigns in which that regiment took a distinguished part. This memorial will form a fitting companion to the one already placed there, by the same sculptor, to the memory of the officers and men of the 57th West Middlesex Regiment, who fell in the Crimea and elsewhere. In accordance with the new arrangements initiated by the present Dean and Chapter, all commemorative works must partake of a sacred character, and we understand that the forthcoming embellishment of this edifice will be illustrative of an episode in the history of David, king of Israel, who, in an encounter with the Philistines (whilst besieged in the cave of Adullam), exclaimed,—"Oh that one would give me drink of the water of the well of Beth-lehem, which is by the gate," as recorded in 2 Sam. xxiii. 15. Underneath the sculpture there will be a smaller panel with a military trophy composed of the badge and other insignia of the regiment. The names of those to be commemorated will be recorded on a brass.

SHOPS FOR THE METROPOLITAN RAILWAY COMPANY.

THE dinner to the workmen employed by Mr. B. N. Smith & Son, Birmingham, was given on Saturday, the 8th inst., at Neasden Works, to commemorate putting on the roofs of the second contract for the new carriage-shops, &c., for the Metropolitan Railway Company. The above contract comprises four buildings, permanent way shop, 325 ft. long, 50 ft. wide, 25 ft. high; builders' workshop, 282 ft. by 50 ft. by 35 ft.; locomotive shops, 260 ft. long by 198 ft. wide, by 35 ft. high; engineer's offices, 100 ft. by 46 ft. by 35 ft. high. The first brick was laid on the 25th of January, 1882. Nearly three millions of bricks have been laid up to the present date. The whole of the work is to be completed by the 31st of October, 1882, and, judging from the progress that has been made, there is reason to believe they will be completed by the time specified. The engineer is Mr. Joseph Tomlinson; the manager, Mr. Henry Charlton, who was also manager for the first contract. The total cost will be about 60,000*l.* The bricks were supplied by Mr. H. Odell, Hayes; the ironwork is from Messrs. Stanley Hall & Co., 91, Queen Victoria-street; lime, from Messrs. Greaves, Bull, & Latrin; stone, from the Howley Park Stone Company.

The dinner was held in the new shop, which was tastefully decorated. The men, numbering 170, sat down to a substantial repast. The chair was taken by the Rev. Crane Wharton, vicar of Willesden; the vice-chair by Mr. Side, manager of the Building Department, Metropolitan Railway Company.

The chairman having proposed the firm, Mr. Charlton said the excellent work that had been done was owing to the subordination of the workmen and the general discipline, and he was pleased to tell them the firm had now work on hand of various descriptions to the amount of 100,000*l.* The vicar, in replying for his own health, said he was pleased to be able to tell them a piece of ground had been presented to him by the Metropolitan Railway Company for a new church, and he hoped ere long to be in the midst of them.

PROVINCIAL NEWS.

Tipton.—The gasworks which have been erected by the Tipton Board of Health were opened on the 1st inst. by the chairman of the Board, Mr. Whitehouse. Previous to the ceremony, Mr. Whitehouse and the solicitor to the Board waited on the Mayor of Birmingham and handed his worship a cheque for 34,744*l.* 12s. 6d., being the amount agreed upon as the value of the mains, &c. Mr. Whitehouse and Mr. Waring subsequently returned to the works at Tipton, where a large number of members of the Board and the general public had assembled. Mr. Whitehouse said the Local Board had taken a great responsibility upon themselves in raising the heavy loan of 60,000*l.*, to be paid off, principal and interest, in fifty years; but the Tipton people would now make their own gas, instead of being dependent on Birmingham. Wages would be paid now to local workers, the works themselves would add to the rateable value of the parish, and there would be a margin of profit to assist the ratepayers. This profit, he trusted, would be made without any increase in the price of the gas to the consumers. There had been paid over to the Corporation of Birmingham 33,700*l.*, in accordance with the award of Sir Henry Hunt, and for additions to the works since then, 1,044*l.* 12s. 7d., making a total of 34,744*l.* 12s. 7d. The Tipton manager was now successfully making gas, and it would be turned on at once. The total cost of the gas undertaking was 67,775*l.* 6s., made up with the above amount with 25,008*l.* 6s. for the outlay on the works, contracts, land, and mines, and 8,022*l.* 6s. 5d. for Parliamentary, law, and other charges. The works are situated half-way between the Dudley Port and Tipton Station on the London and North-western Railway, on land formerly belonging to the Tipton Green Colliery Company, and they were designed by Mr. Thomas Proud, C.E., of Birmingham. Messrs. Howl, Ward, & Howl, of Tipton, excavated the ground and erected the buildings; and the ironwork, engines, &c., were supplied by the Horsley Company. There are eighty-four retorts, with provision for thirty more, and there is power to force 400,000 ft. of gas per day through the pipes. The offices in connexion with the concern are well and strongly built. The meter has been supplied by Messrs. Bent & Son, of Birmingham. The two gasometers are capable of holding 154,000 cubic feet of gas each.

Birmingham.—In readiness for the Triennial Musical Festival which takes place next month, the Town-hall interior is undergoing considerable renovation and improvement. Mr. J. P. Norrington, the building surveyor to the Estates Committee of the Town Council, has been for some time past engaged in superintending not only the cleaning and painting of the hall, but in carrying out a variety of important structural alterations, the need of which had long been felt, and which the present was thought a suitable opportunity for making. The alterations are chiefly in regard to the means of egress and the provisions for ventilation, lighting, and drainage. The staircases to the great gallery have been rearranged, so that a much safer and speedier egress than formerly is afforded to the large numbers of people who on special occasions are accommodated in the great gallery. Beneath the orchestra two large additional doors are now provided opening from the floor into the committee room behind. From the committee room a new exit, in the shape of a fairly spacious passage and doorway, has been opened through the back of the hall, and in front of the Chamberlain Memorial. From this passage an additional staircase to the orchestra will be erected, thus providing for a portion of the hall which has always been most inconvenient of access. At the Ratcliffe-place side of the hall a new staircase will be run up to the orchestra, and on either side of the orchestra the passages and doorways have been materially widened. In the corridors alterations have been effected by the removal of obstructions which tended to impede egress in case of a panic, and in various other parts of the hall care and attention have been devoted to the same purpose of facilitating the emptying the hall in the event of a rush.

MR. GEORGE SOMERS CLARKE, ARCHITECT.

WE mentioned the lamented death of this gentleman in our last only briefly. Mr. Somers Clarke commenced his professional career as a pupil of the late Sir Charles Barry, R.A., under whom he was engaged in preparing many of the drawings for the Houses of Parliament. In 1849, he, with Mr. J. Johnson, F.S.A., illustrated "The New Palace of Westminster," and many other of his drawings were published in various forms.

On leaving Sir C. Barry's office Mr. Clarke spent a considerable length of time on the Continent, going through France, Germany, and Italy. The number of his sketches testifies to the delight he took in his profession; and it is evident that during this tour he laid the foundation of that intimate acquaintance with, and delicate appreciation of, Italian detail which afterwards characterised his works. He also travelled extensively through England, and prepared, amongst a multiplicity of other sketches, a beautiful series of drawings of Northamptonshire churches, which, however, was never published. Amongst his earlier works were:—

Cowley Manor, Gloucestershire, mansion, stables, lodges, &c.; Merchant Seamen's Orphan Asylum and Chapel, Snaresbrook; Brighton Blind Asylum; Swan Downers' Schools, Brighton; Turkish Baths, Jermyn-street (this was the first bath built of any pretensions); Forest Hill Park, Windsor, mansion and stables; Foxbush, near Tunbridge, Kent, residence, lodge, and stables; Mountains, ditto; Manor House, Sidmouth, Devon, residence, lodge, and stables; Mount Felix House, Walton, additions, &c.; Maresfield Rectory; Pinehurst, Box Hill, additions, &c.; Kemnal Wood, Heathwood, and Millfields, Chislehurst, residences and stables; a small clergy-house, Chislehurst; Coffee Tavern, Chislehurst; numerous Queen Anne houses on the Manor Park Estate, Chislehurst, for Mr. W. S. Mahoney; Grange Houses, for Mr. E. B. Ricketts, Chislehurst; residence, stables, and lodge, for Dr. Saunders, Chislehurst; farmhouse at Kensworth, Beds.; he also received the premium for the Midland Railway Hotel, St. Pancras; Milton Hall and Parrock Lodge, Gravesend; The Warren, Hayes, Kent, residence and stables.

Amongst his City works may be mentioned:—The Auction Mart; General Credit Company; Messrs. Munt & Brown's warehouse, Wood-street; eight warehouses, Cripplegate; a large warehouse, corner of New Basinghall-street, for Messrs. McIntyre & Co.; Messrs. Brett's warehouse, High Holborn.

Mr. Clarke restored Dunstable Priory Church, and Houghton Regis Church; and added a new chancel to Trinity Church, Marylebone.

Mr. Clarke was among the architects chosen to compete for the Foreign Office, Law Courts, National Gallery, &c. His largest and principal work was Wyfold Court, Oxon, the seat of the late Mr. E. Hermon, M.P. This work comprised mansion, grange-house, stables, bailiff's house, school, lodges, dog-kennel, cottages, &c.

At the time of his death he was preparing designs for an additional wing to the Law Institution, Chancery-lane, Peplow Hall, and other works.

Mr. Clarke was elected an Associate of the Royal Institute of British Architects in 1845, and a Fellow in 1859, and was at one time an acting member of the Council.

His death was painfully sudden, he being engaged in business within a few hours of his decease. He was held in great esteem by a large circle of both private and professional friends, and especially by the members of his office, to whom he always showed the greatest kindness and consideration.

THE DESIGNS FOR THE MUNICIPAL BUILDINGS, GLASGOW.

A SPECIAL general meeting of the Glasgow Institute of Architects was held on Tuesday, Mr. John Honeyman, F.R.I.B.A., president, in the chair, and there was a good attendance of members.

Mr. William MacLean, the secretary, reported that the Council of the Institute had sent a letter to the Lord Provost proposing that an opportunity should be afforded competitors for the new Municipal Buildings of publicly exhibiting their designs immediately after the final award, and recommending that competitors should be invited by the Town Council Committee to return their drawings, or some of them, with this view; and that the Council should give the Corporation Galleries for the exhibition, and undertake such expense as might be incurred. The secretary further reported that the Lord Provost had submitted this letter to the Municipal Buildings Committee of the Town Council, who had declined to carry out the suggestion that the designs should be publicly exhibited; that the Council of the Institute having again considered the matter, resolved that steps should be taken to ascertain whether the competitors, or a majority of them, would wish their drawings to be exhibited. A circular was accordingly being sent to the secretaries of the various architectural societies intimating the refusal of the Town Council, stating that the Institute had resolved to make the necessary arrangements for such an exhibition if a majority of the competitors wish it, and asking the several societies to assist them by bringing before architects the following intimation, viz.:

> "The Glasgow Institute of Architects having agreed to undertake the charge of an exhibition of designs submitted in competition for the Glasgow Municipal Buildings if asked to do so by a majority of the competitors, all willing to exhibit their designs, are requested to send intimation to the secretary of the Institute, Mr. William MacLean, writer, 196, St. Vincent-street, Glasgow, on or before Tuesday, the 18th inst."

The President said he had no doubt that the refusal of the Town Council to exhibit the rejected designs along with the one which had been chosen would cause general dissatisfaction, not only among architects, but among all who took any interest in the proposed undertaking. Although the condition bearing upon the point was somewhat obscure, the intention of the promoters no doubt was that there should be no public exhibition of designs until after the final award. Many competitors thought that there ought to have been such an exhibition before the final award. There was considerable diversity of opinion as to this, and there was room for such diversity; but he thought every one would agree that in all important competitions there ought to be an exhibition of the designs after the decision, if not before it. It was only what was due to the competitors, who, of course, had a laudable desire to show what they had achieved,—how nearly they approached success,—what they thought good, or even best, whatever other people might think. It was due also to the public, who were really through their representatives the promoters of this competition, and many of whom took an intelligent interest in it. A competition such as this without an exhibition of all the designs was like a race in which only the winner and none other should be visible. The idea that people were not interested in any but the winning design, or boat, or horse, or anything else, was simply monstrous. He was not a competitor himself, and spoke dispassionately; but he must say that he regretted this refusal exceedingly, and all the more because up to this point the Council had acted in such a way as to merit the highest commendation, and the influence of their example would certainly be beneficial in the conduct of future competitions. In the circumstances their Institute seemed to be called upon to do what the Town Council ought to have done.

On the motion of Mr. Sellars, seconded by Mr. Bromhead, the meeting unanimously approved of the action of the Council of the Institute, and remitted to them to make the necessary arrangements for the proposed exhibition, provided, in their opinion, a sufficient number of the competitors are desirous of exhibiting their designs.

NEW POLICE STATION, LEWES.

THE old Mechanics' Institution and Lecture Hall, West-street, Lewes, with a cottage and builder's yard pertaining, is to be converted into a county police-station; the price given to Mr. Crosskey and Mr. J. Every for the premises and ground is 1,250*l*. for the hall, and 700*l*. for the adjoining parts. The estimated outlay is within 6,000*l*. The accommodation will comprise dormitories for twenty constables, five cells for prisoners, stable, cart-shed, chief constable's apartments, clerk's office, waiting-room, three bed-chambers, superintendent's quarters, living and three bed-rooms, two sergeants' rooms, six bedrooms, constables' two rooms, charge and store-rooms, lavatories, dining-hall, reading-room, and library. The alterations are to be commenced forthwith, and a great portion of the present fabric will be converted to the usage required, under the superintendence of Mr. Henry Card, the county surveyor.

INTERNATIONAL COMPETITION.

THE *Official Gazette* (Bucharest, July 10th) publishes a decree announcing a public competition for plans of the bridges to be built over the Danube connecting the Kustendje-Cernavoda and Bucharest-Fetesti Railways; and also for plans of a tunnel to be constructed under the Danube at about the same spot. The prizes for the plans of the bridges will be of the value of 100,000 francs, and those for the tunnel will be worth 50,000 francs. The cost of the bridges is estimated at about 20,000,000 francs.

The Roumanian Government invites the principal engineers of the world to compete.

THE SWIMMING-BATH AT THE LEYTONSTONE WORKHOUSE.

AT last week's meeting of the West Ham Guardians it was reported that the swimming-bath at the Leytonstone Workhouse was leaking at a costly rate, 2,500 gallons of water having escaped in the short space of thirteen hours, and Mr. Simons, one of the members, said he was afraid that the leakage was affecting the foundations of the house to a very serious and dangerous extent. In the course of a conversation on the matter it transpired that Mr. Angell, the surveyor, had suggested that the interior of the bath should be stripped, and it was proposed and seconded that this course should be adopted, and that the surveyor, under the superintendence of a committee, should carry out the necessary repairs. Some of the Guardians were opposed to the proposal, and it was urged that, as the whole of the work in connexion with the construction of the bath had been executed so recently, and at so great a cost to the ratepayers, the fact of so great a leakage was a reflection on the surveyor and the builder, and that the Guardians ought not to give their consent to the spending of an indefinite sum to repair other people's bad work. The proposal was, however, adopted.

HYDE PARK CORNER.

AT the meeting of the Metropolitan Board of Works on the 7th inst., the following report of the Works and General Purposes Committee was then read:—

> In pursuance of the reference by the Board of Friday last, your Committee have had before them the memorial presented on that day by a deputation from the Council of the Royal Institute of British Architects, on the subject of the proposed improvements at Hyde Park Corner. The memorial expresses the opinion of the Council that, while the general idea of the scheme merits public approval, it is defective in two main particulars, namely:—1. That inadequate provision is made for the relief of the public traffic. 2. That the removal of the Wellington Arch is unnecessary. The grounds upon which this opinion is based are set forth in the memorial, with which is presented an alternative plan showing how the two objects desired by the Council could, in their judgment, be accomplished. Your Committee have carefully considered the representations addressed to the Board by the memorialists, and they have had an opportunity of ascertaining the views of the First Commissioner of H.M. Works on the subject. They find that the First Commissioner has already explained to a deputation of the Council who waited upon him that, with respect to the only detail upon which that body appeared to be itself agreed, namely, the widening of Piccadilly from a point further to the eastward than is shown in the official plan, he had already made provision in this direction in his instructions for the working drawings. Your Committee learn also that the First Commissioner pointed out to the deputation the grave objections to their alternative plan which had led him to reject many others of a similar nature when considering how best to deal with the question. The First Commissioner was under the impression that the deputation, or at all events the great majority, were convinced as to the objections to their plan, and he has expressed his surprise at the course which the Council have taken in memorialising the Board on this matter. Your Committee fail to see that any sufficient reason has been shown by the memorialists to induce the Board to suggest a variation in the plan which has been already determined upon, and they recommend that a reply be addressed to the Council to that effect.

Mr. Selway, in moving the adoption of the report, said it would be in the recollection of the Board that last week * a deputation attended from the Institute of British Architects and presented a memorial, which was accompanied by a plan, on this subject. After the deputation had explained their views, it came out that they had previously waited upon the First Commissioner of Works, and, not having received much encouragement there, they came to the Board. There would appear to be no impropriety in the Institute addressing the Board on the question, seeing that the Board had agreed to contribute a very large sum of money in aid of this improvement, but having very carefully considered the proposals of the Institute, the Committee could not recommend the Board to apply to the First Commissioner for any modification of the original plan. It appeared that the Council of the Institute itself was very divided as to the plan which should be submitted to the Board, and the plan presented by the deputation was only the plan of a small portion of the Council.

The recommendation of the Committee was approved.

DECISION UNDER THE BUILDING ACT.

ON the 5th instant a case of some importance was heard before Mr. Ellison at the Lambeth Police-court. The point at issue has before been raised, under the Metropolis Building Act, as to what constitutes a building; and in this case additional interest was manifested from the peculiar nature of the structure.

The summons was against Mr. Robert Clark, of 403, Kennington-road, taken out by Mr. Banister Fletcher, the surveyor under the Act for the district, for his having, on the 28th of March, erected, or caused to be erected, in the forecourt of such house, a certain structure without giving two days' notice before such work was commenced. In that notice the defendant was bound, it was alleged, to give the situation, area, height, and intended use of such buildings, &c., according to the terms of the Building Act, 1855, and whereby he had rendered himself liable to a penalty not exceeding 20*l*.

Mr. Burton, from the office of the Metropolitan Board of Works, appeared to prosecute, and pointed out that in this case defendant had erected, or caused to be erected, a certain wooden structure upon the garden in front of his house, which, although on wheels, was contended to be a building within the meaning of the Act. He believed that the contention of the defendant, from what he had heard, would be that as the structure was upon wheels, it would not come within the provisions of the Act. He (Mr. Burton) desired to refer his worship to the case of Stevens *v.* Gorsley, in which Mr. Justice Byles gave a decision; but likewise more particularly to a decision given by Mr. Chance at this Court, on all fours, as it were, with the present case.

Mr. Ellison said the only question really before him was whether a building on wheels, as this was described to be, was a building within the meaning of the Act. He had no doubt there was the same danger arising from such a structure as another differently built; and he had no hesitation whatever in saying this structure was a building within the meaning of the Act, and he should hold such to be the case until his opinion was upset by that of a superior court. Mr. Ellison imposed a fine of 20s. and costs. The money was paid.

HAMILTON PALACE.

SIR,—Will you allow me to correct a statement regarding Hamilton Palace in the article in your recent issue (p. 4, *ante*) on "London and London's Architects a Century Since," viz., "that Wanstead House seems to have been exactly reproduced (see the illustrated papers) in that palace of the Dukes of Hamilton which even now is giving up its contents to follow in the fatal train to the auction-room."

Wanstead House, as a composition, is a two-story building, with a rusticated basement, and having pavilions of three stories at either end, a centre of corresponding height, with a hexastyle portico, rising from the top of the basement floor, with outside stairs, right and left, leading up to it, the main cornice surmounted by a balustrade and bases.

The new or north front of Hamilton Palace, designed by David Hamilton, and usually the one given in views such as appeared in the *Illustrated London News* of a week or two ago, is a building of equal height throughout, viz., three stories, the portico and stairs leading to it being similar to that at Wanstead; there the resemblance ceases, the proportion and composition of the two fronts being widely different; the one having a broken outline, the other horizontal in character, with a refinement of feeling and quiet dignity immeasurably superior to its so-called antitype. What the architect might have made of it, had he been unfettered and had an entirely new building to design cannot now be surmised; but I have no doubt it would have been worthy of his reputation. What he had to do was to put a new front at the back of an old building, which, in plan, forms three sides of a quadrangle,—now the garden front,—with the entrance-door and hall on the ground-floor; whereas he had to place the grand entrance-hall and state-rooms on the second-floor level, those in the old building being on the ground-floor. That it is a marvellous success will, I think, be allowed by every visitor, coupled with a regret that the effect of the new front cannot be fully brought out on account of its bad exposure.

---

* See pp. 51, 57, *ante*.

Of the many works executed by Mr. Hamilton, this is the first time I have heard him accused of being a copyist, and I think it but fair to his memory to free him from such a reproach.

An Old Pupil.

Miscellanea.

The Stafford Surveyorship.—At a meeting of the Stafford Town Council on the 4th inst., the General Purposes Committee reported that the surveyor, who had been appointed borough engineer for Blackburn, had written a letter dated the 23rd ult. to the Town Clerk giving notice of his intention to resign his position at the expiration of three months. The committee, while regretting the loss of Mr. M'Callum's services, recommended that his resignation be accepted, and that an advertisement be inserted in certain papers for a successor at a salary of 200*l*. a year, with an annual increase of 10*l*. for five years. The Mayor, in moving the adoption of the report, expressed regret at losing the services of so efficient an officer. Mr. M'Callum had been with them some years, and during that time considerable works of public improvement had been carried out, all of them in a most satisfactory and efficient manner. While they regretted to lose Mr. M'Callum, they offered to him their congratulations on the substantial advance he had obtained, as well as to the town of Blackburn on obtaining the services of so zealous an officer. Alderman F. Marson seconded the adoption of the report, and endorsed the remarks of the Mayor. Mr. Holder moved that the recommendation to advertise for a successor at the salary named be struck out, being of opinion that they could obtain the part-services of a gentleman for half the money. This was seconded by Mr. Follows, but ultimately it was resolved that the appointment of a successor should be considered by the Council in committee.

The Parkes Museum of Hygiene.—We are very glad to hear that the committee, at the meeting of the Council last week, resolved unanimously, on the motion of Dr. Poore and Mr. Berkeley Hill,—"That the Council of the Parkes Museum is of opinion that, pending an appeal to the public for funds to erect and endow a Museum, it will be necessary, and they have decided, to remove the collection of articles at present housed in University College to premises more suited for the purpose of display and instruction. This removal will be carried out with all possible despatch." A building committee has been appointed to inquire and report to the Council as to obtaining a suitable building for the purposes of the Museum on a short lease, with option, if possible, of purchasing the freehold at the end of the term.

The Restoration of Christ Church, Hampstead.—This church has been decorated and improved, Mr. Ewan Christian acting as architect. The east window, portraying the Acts of Faith, as recorded in Heb. xi., the carved oak Communion-table, with its handsome fittings, the gas pendants, and a new porch (yet to be erected) to the south door, have been all liberally presented by friends. The transfer of the organ to the south side of the chancel, the opening out of a north window in the tower, the erection of a new and commodious free aisle, and an improvement in the system of ventilation, are amongst the works which have been effected. We may add that the balance unpaid is now under 100*l*. out of 5,080*l*., all contributed by the congregation within the twelve months.

Proposed Town-hall, Newport.—An inhabitant writes: "It is reported that one of the least satisfactory plans has been accepted for the new Town-hall, street levels ignored, and the Town Surveyor's opinion set aside."

The Police Orphanage, Twickenham.—On Saturday last the Prince and Princess of Wales visited the Metropolitan and City Police Orphanage at Strawberry-hill, and opened a new wing to the building. The Orphanage stands at a distance of about five minutes' walk from Horace Walpole's villa, on the other side of the railway. The institution provides for the maintenance, education, and start in life of 150 boys and 100 girls. Sir Edmund Henderson, in requesting the Prince to declare the "Prince of Wales Wing" open, mentioned incidentally that the area watched over by the London police had increased so much since the Orphanage was opened, little more than ten years ago, that the new buildings erected in the metropolis would make a street extending from that Orphanage to Abergeldie Castle. The police of the metropolis had increased in numbers from 9,000 to 12,000 of all ranks. After thanking their Royal Highnesses for coming down on that occasion, he asked the Prince of Wales to present a salver, on behalf of the officers of the institution, to Mr. F. H. Caiger, the architect of the new wing, to whom they were very much indebted for his gratuitous services.

Public Servants at Leicester.—Arising out of the recent visit of the Prince of Wales to open the Abbey Park at Leicester, the members of the Decorations Committee on the 7th inst. entertained the Town Clerk and Borough Surveyor to dinner at the Leicestershire Club, and presented each with a testimonial in acknowledgment of their valuable services in promoting the success of the late demonstration of loyalty and public spirit. A number of visitors were present, and in all about forty gentlemen sat down. The Mayor presided, and proposed the usual loyal toasts, which were most loyally honoured, after which Mr. J. H. Millican, in very happy terms, gave the health of the Mayor, and his Worship responded in an able speech. Then the Mayor proposed the health of Mr. Storey (the Town Clerk), and Mr. Gordon (the Borough Surveyor), and presented each with an illuminated address, and a handsomely-bound copy of Thompson's "History of Leicester," similar to the one presented to the Prince of Wales. Both the Town Clerk and Borough Surveyor responded in appropriate speeches.

Liverpool Municipal Archives and Records.—Sir J. A. Picton having, at the request of the Finance and Estate Committee of the City Council, made a careful examination of the Municipal Archives and Records, for the purpose of preparing a catalogue, he has found them so fraught with matters of interest illustrative of the history and progress of the town in its municipal affairs, the growth of its commerce, its manners and customs, &c., a very small portion of which have seen the light, that he thinks it highly desirable that a selection from them should be published, with the necessary annotations. He is willing to undertake the task, without any view to remuneration, provided a sufficient number of subscribers can be secured to defray the expense of paper and print.

The Ship Canal, Manchester.—A meeting of the Provisional Committee for the promotion of the Manchester Tidal Navigation was held at the temporary offices, St. Ann's-square, Manchester, on the 7th inst., when steps in advancement of the undertaking were taken. Messrs. Hamilton Fulton, C.E., of London, and E. Leader Williams, C.E., of Manchester, were appointed engineers, and instructed to make the necessary survey, to prepare a joint report and estimate, and to submit the same to a future meeting with the least possible delay. Mr. Henry Whitworth, of King-street, Manchester, was appointed secretary.

Smoke Abatement Committee.—A meeting will be held at Grosvenor House, for the presentation of awards, and to receive the general report on the Exhibition of Smoke-abatement Appliances at South Kensington, and reports of jurors, on this Friday, July 14th. At this meeting a report will be presented on the general results of the late exhibition, and a programe of operations by which the committee desire to render the work thus begun continuous, progressive, and permanent in its effects.

Granite.—In reply to an inquirer, the red granite pedestal on which stands the Rowland Hill Memorial, recently unveiled, came from the Dalbeattie quarries of Messrs. Shearer, Field, & Co.

Serious Gas Explosions in Paris.—A series of terrible gas explosions took place on Wednesday in the Rues du Pont Louis Philippe and François Miron. Forty persons have been injured grievously, and some mortally. At six o'clock in the morning a restaurateur, named Garch, whose house is at the corner of the two streets, was busy decorating the balcony with flags when his wife came to tell him she smelt gas in the cellar. He at once proceeded to warn a gas company's agent, but the office was closed, and the *employés* who should have been there had gone out to see the preparations for the *fêtes*. Garch returned home. An hour later a detonation was heard next door in a barber's shop. The firemen of the Rue de Sevigné were summoned and put out the fire consequent upon the explosion. When they were busy examining the gas-pipes in the cellars of the two houses, news was brought that the gas on the other side of the street was burning. Underground flames darted out of a sewer's mouth. A number of people gathered to look at them. In about twenty minutes after their first appearance a fearful detonation took place. The house opposite Garch's *café* was half blown up, and many other houses were violently shaken. There was an upheaval of the footpath and carriage-way, and paving-stones and splinters of iron were projected like grape-shot.

Official Regulations for the Safety of Theatres in Austria.—A telegram from Vienna says that the Minister of the Interior is about to despatch instructions to all the governors of the provinces to prepare a list of regulations to be submitted to the several Diets in the form of a Bill establishing general official control over all matters connected with the theatres within their jurisdiction in accordance with local requirements. The principal provisions will be as follow:—In every town where there is a theatre a local commission is to be appointed, composed of representatives of the municipal authorities, the police, the medical profession, the fire brigade, and impartial experts. These are to exercise a general supervision. Further, a similar local provision, but comprised of members of the Diet, is to be attached to the Stadtholder's office in each province. All new theatres are to be detached from other buildings, and are to contain no storerooms. Every inflammable substance used in the performances is to be impregnated with fire-resisting fluids, and the most minute precautions are to be taken for insuring proper inspection. It will also be provided that there shall be an open gangway between every six rows of seats, that a shaft for the escape of smoke shall be erected, and that the number of the audience shall be strictly limited to the capacity of the theatre.

Working Men's Club Conversazione.—The South Kensington Museum was on the 7th inst. for the first time the scene of the annual *conversazione* of the Working Men's Club and Institute Union, Sir Thomas Brassey, M.P., who succeeded the late Dean Stanley as president of the Union, having conceived the happy thought of availing himself on this occasion of the resources of the museum as a place of social gathering. The doors having been thrown open at seven o'clock, the members of the various clubs, to the number of about 800, who had accepted the invitation, had time to inspect the treasures of the national collection before the arrival of their host and hostess, the hour announced for the reception by Lady Brassey being 8.30 p.m.

Mr. Sage's Establishment.—A party numbering over eighty of the workmen engaged at Mr. Frederick Sage's works, Gray's Inn-road, dined together at St. Alban's on the 8th. Mr. Sage, who was present, expressed his gratification at the happy relations existing between himself and those about him, and impressed upon them the necessity of doing whatever they were engaged on in the best possible manner, so as to keep up the reputation of the firm.

Artisans' Dwellings.—In the House of Commons, on Monday last, Sir S. Northcote (in the absence of Sir R. Cross), asked the Secretary of State for the Home Department whether the Government would endeavour to secure the passing of a Bill during the present session to carry into effect the general recommendations of the Artisans' Dwellings Select Committee. Mr. Shaw-Lefevre, on behalf of the Home Secretary, replied that it was the intention of the Government to endeavour to pass such a measure in the present session.

Coming-of-Age Festivities. — Mr. John Fitzherbert Campbell, son of Mr. C. M. Campbell, Mayor of Stoke, head of the firm of Messrs. Minton, and chairman of the North Staffordshire Railway, attained his majority on the 6th inst. The event was one which has created a considerable amount of interest, especially among the workpeople of Messrs. Minton. On Saturday over 2,000 of the workpeople of the firm were conveyed to Rudyard, a picturesque spot about twelve miles from Stoke. They were provided with dinner and tea in a large tent. After dinner, Mr. George Leason, manager of the firm, read an address, and then ten of the oldest workpeople (five males and five females) of the firm presented Mr. J. F. Campbell with a tray, jug, and goblet, executed in hammered silver from the design of Mr. Leo Arnoux, art director at Messrs. Minton's, and specially manufactured by Lambert, of London. The inscription on the goblet is as follows:—"Presented to John Fitzherbert Campbell on attaining his majority on July 6th, 1882, by the *employés* of the firm of Minton's and the Campbell Tile Company, in testimony of their sincere and earnest wishes for his welfare, and respect for Colin Minton Campbell, his father." Accompanying it was an illuminated album, designed by another artist of the firm, Mr. Reuter, containing 1,792 signatures. Mr. J. F. Campbell, suitably acknowledged the presentation, and his father delivered an appropriate address to the workpeople, after which the time was taken up with various amusements.

Decorative Sculptures for St. George's Hall, Liverpool.—The *Liverpool Daily Post*, criticising the thirty-nine designs sent in by competitors, says that many of the 250 drawings and models (now on view in the Walker Art Gallery) "are simply of a farcical character . . . . The majority of them are merely stonecutters' conceptions, of the rule-and-compass pattern, and free from any abstruse originality; others are elegant enough in design of commonplace patterns, and full of trashy and *rococo* symbolism of recent invention, so 'localised' and rendered down to the taste of the day that it would be pitiful if it were not frequently ridiculous; and two or three only of the designs sent in . . . are fit to be regarded as Classic art, or as in any respect worthy of the work of which they are to form a portion." Our own correspondent takes a more flattering view, and says there are amongst them some very good designs, well suited to their purpose. It is earnestly to be desired that a good result will be obtained, the authorities having shown every desire to bring this about.

The Surveyors and Auctioneers' Clerks' Provident Association.—It will interest many of our readers to know that, although no public announcement of the position of the forthcoming rules of this Association has been made, we are assured that the Committee have not slackened, and are still hard at their work. The requirements of the Friendly Societies Acts, under which the rules must be drawn, are so numerous and stringent as to necessitate great care in their compilation. We are able to state that the rates of subscription have been considerably reduced from the figures placed before the last general meeting, and the superannuation scheme available for members over seventy, which has been a considerable difficulty, has every prospect of being carried through.

Samuel Pepys.—An influential committee has been formed for the purpose of obtaining subscriptions towards the erection of an appropriate memorial to Samuel Pepys in the Church of St. Olave, Hart-street. It seems strange that no monument of any kind should exist in the church with which the Diarist was so intimately connected, and where he was buried; and it is thought that many of those who have experienced pleasure in reading the "Diary" will be willing to contribute something in order that the proposal may be carried out satisfactorily. The treasurer is Mr. Owen Roberts, clerk to the Clothworkers' Company; and Mr. Henry B. Wheatley, 6, Minford-gardens, W., is honorary secretary.

A Painted Window and Memorial Brasses, from the studio of Mr. Taylor, of Berners-street, were last week completed in the church at Lower Beeding, off Horsham, the gift of Lady Barttelot, in memory of her parents.

Hove.— St. Andrew's Church, Waterloo-street, Hove, has had a new chancel added from designs of Mr. Charles Barry, architect. Mr. Geo. Lynn is the builder.

New Clock at Burnham.—A new turret clock has been fixed in St. Mary's Church, Burnham, near Rochester, by the well-known firm of J. W. Benson, of Ludgate-hill. It shows the time on four skeleton iron dials, 5 ft. in diameter, with gilt figures and hands, and strikes the hours on a bell of 6 cwt. The frame is of horizontal construction, all the wheels being of brass, and the main wheels 12 in. in diameter with the teeth cut in the same by steam machinery.

TENDERS

For the erection of a block of four and a pair of cottages for the Right Hon. W. H. Smith, M.P., at Great Thurlow, Suffolk. Messrs. Sedgwick, Son, & Weall, Watford, architects. Quantities supplied by Messrs. Nixon & Raven:—

Redding & Son, Cambridge	£1,865	0	0
Bell & Sons, Cambridge	1,799	0	0
Grimwood & Sons, Sudbury (Suffolk)	1,698	0	0
T. Cadge, Hartest	1,669	0	0
Wm. Saint, Cambridge	1,588	0	0
Mason & Son, Haverhill (accepted)	1,579	0	0

For alterations and additions to Swiss Villa, Clarendon-road, Watford, Herts, for Mr. H. Mellard. Messrs. Sedgwick, Son, & Weall, Watford, architects:—

T. Turner, Watford	£1,049	0	0
A. W. Chadwick, Watford	997	0	0
M. Godwin, Watford	975	0	0
G. & J. Waterman, Watford	959	0	0
W. B. Neal, Watford	930	10	0
Clifford & Gough, Watford	921	0	0
Andrews & Sons, Watford (accepted)	889	0	0

For the erection of farm-house and buildings at Hawbush Farm, Great Gaddesden, Herts, for Mr. T. F. Halsey, M.P. Messrs. Sedgwick, Son, & Weall, Watford, architects:—

C. Miskin, St. Alban's	£2,365	0	0
Cook Bros., Berkhamsted	2,100	0	0
T. Turner, Watford	2,100	0	0
W. L. Sear, Hemel Hempstead*	1,998	13	0

* Accepted.

For the erection of a cow-house and granary, at Great Wratting Hall Farm, for the Right Hon. W. H. Smith, M.P. Messrs. Sedgwick, Son, & Weall, Watford, architects:—

Mason & Son, Haverhill (accepted)	£753	0	0

For the erection of a pair of cottages at Easty Lodge Farm, Great Thurlow, Suffolk, for the Right Hon. W. H. Smith, M.P. Messrs. Sedgwick, Son, & Weall, Watford, architects:—

Mason & Son, Haverhill (accepted)	£463	0	0

For the erection of a farm-house and buildings, at Wilkin's Farm, Ruislip, Middlesex, for the trustees of the late Mr. G. E. A. Hilliard. Messrs. Sedgwick, Son, & Weall, Watford, architects:—

F. Larter, Harrow Weald	£2,250	0	0
Andrews & Son, Watford	1,958	0	0
T. Turner, Watford	1,745	0	0
C. Brown, Harefield (accepted)	1,630	0	0

For levelling, forming and laying foundations, kerbing and channeiling, in Gloucester-road and Chapel-grove, in the township of Urmston, for the Barton Rural Sanitary Authority. Quantities by the engineer, Mr. John Price:—

E. Bird, Chorlton	£550	10	0
G. Unsworth, Moss-side	524	6	5
S. Cowburn, Hindley	519	0	0
S. Holt, Newton Heath	497	0	0
J. Randall, Weaste	468	7	10
M. Naylor, Hulme (accepted)	455	9	7

For repairs, &c., at Elm House and Rokesley, Crouch End, for Mr. L. Kelley. Mr. J. Farrer, architect:—

Oldess	£218	10	2
J. Harper	184	0	0
Southcott	173	0	0
J. S. King (accepted)	165	0	0

For alterations and additions to house at Wanstead, for Mr. Mumford. Mr. J. T. Bressey, architect:—

Ashby & Horner (accepted)	£840	0	0

For four cottages, Nightingale-lane, Wanstead, for Mr. Sultan Abbott. Mr. J. T. Bressey, architect:—

W. Mundy (accepted)	£675	0	0

For Trinity Free Church of England, New Malden, Surrey. Mr. T. L. Howard, architect, John-street, Bedford-row:—

		Deduct for Bath Stone.		
Oldridge	£2,640	£385	0	0
Turtle & Appleton	2,640	185	0	0
Rice	2,613	140	0	0
Johnson	2,434	214	0	0
Saunders	2,397	250	0	0
Le Gassick & Co.	2,350	160	0	0

For the erection of a new retort-house, coal-store, engine and boiler house, boundary-wall, &c., at the Sevenoaks Gasworks. Mr. A. Penny, C.E.:—

	Buildings, &c.			Roof.			Tiling.		
	£.	s.	d.	£.	s.	d.	£.	s.	d.
Howell & Sons	2,400	0	0	....			130	0	0
Robson	2,367	17	1	356	8	0	134	13	1
Ansell	2,267	0	0	544	0	0	174	0	0
Crockett	2,260	0	0	450	0	0	143	0	0
Lucas & Son	2,250	0	0	640	0	0	122	0	0
Durtnell	2,200	0	0	....			146	0	0
Hunt	2,165	0	0	200	0	0	142	0	0
Holt	2,150	0	0	465	0	0	125	0	0
Cockey & Son*	....			290	0	0	128	16	0
Wiltshire†	2,020	0	0	324	0	0	150	0	0
Calland & Son	1,874	0	0	322	10	0	144	0	0

* Accepted.
† Accepted for buildings only.

For the erection of a Wesleyan Chapel, St. George's road, Newington, Hull. Messrs. Botterill, Son, & Bilson, 23, Parliament-street, Hull, architects. Quantities by the architects:—

H. Grassby	£4,078	6	6
Fredk. Beilby	3,683	0	0
Executors of the late Thos. Southern	3,660	3	0
Robt. Habbershaw & Son	3,625	10	0
B. Musgrave, jun.	3,570	0	0
J. T. Skinner	3,460	0	0
R. Sergeant (accepted)	3,427	0	0

For keeper's house, boundary-walling, railing, &c., at the new Cemetery, Ayton-in-Cleveland, for the Burial Board. Mr. John W. Alexander, architect, Stockton-on-Tees. Quantities by Mr. Wm. Lunn:—

Jonas France, Middlesbrough	£1,216	3	11
H. Bulmer, Great Ayton	1,095	13	6
Wm. Pearson, Great Ayton*	1,084	16	3
J. & F. C. Coates, Marton and Nunthorpe†	988	17	8

* Accepted.

† The tender of Messrs. J. & F. C. Coates being the lowest, was originally accepted, but they declined to enter into the contract agreement.

For laying out and planting New Cemetery, Ayton-in Cleveland, for the Burial Board. Mr. John W. Alexander architect. Quantities by Mr. Wm. Lunn:—

Jonas France, Middlesbrough	£144	0	0
C. Hockney, Stokesley	134	4	6
A. Cowe & Crosby, Great Ayton	105	0	0
Wm. Pearson, Great Ayton (accepted)	100	11	8

For alterations, &c., at St. Andrew's tavern, 70, George-street, Baker-street, for Mrs. S. J. Headon. Mr. Wm. West, architect:—

Turtle & Appleton (accepted)	£540	0	0

Gasfitting.
Wm. Winn (accepted).

Pewtering, &c.
W. Helling (accepted).

For alterations, &c., at the Harp Tavern, Russell-street, Covent-garden. Mr. Wm. West, architect:—

Toms	£242	0	0
Wright	235	10	0
Turtle & Appleton	225	0	0
Bennett	205	0	0

Pewtering.
Wm. Paddon, jun. (accepted).

Gasfitting.
J. E. Woodward (accepted).

For alterations, &c., No. 119, High-street, Camden-town, for Messrs. Taylor Bros. Mr. Wm. West, architect:—

Dixon	£368	0	0
Gould & Brand	359	0	0
Turtle & Appleton	337	10	0

For bringing-out two shops, &c., at Norbiton, Surrey. Mr. Wm. West, architect:—

Henley	£376	0	0
Oldridge	295	0	0

For alterations and additions to premises, 519, Kingsland-road, for Mr. Sidney Smith. Mr. Geo. Waymouth, architect, 23, Moorgate-street:—

N. Lidstone	£220	0	0
W. Shurmur (accepted)	143	0	0

For shop-front and other work, at 170, Stoke Newington-road, for Mr. A. W. Webb. Mr. Geo. Waymouth, architect:—

W. H. Lascelles (accepted)	£220	0	0

For shop-front and other work at 40, Amhurst-road, Hackney, for Messrs. Webb & Dashwood. Mr. Geo. Waymouth, architect:—

W. Shurmur (accepted)	£123	0	0

For roads and sewers at Leyton Manor Estate, for Mr. W. Brander. Mr. Geo. Waymouth, surveyor:—

D. Knight	£2,863	0	0
C. Taylor	2,394	18	0
W. Porter	2,298	15	0
Jesse Jackson (accepted)	2,222	0	0

For roads and sewers, for the Plashet House Estate Company, Upton. Mr. Geo. Waymouth, surveyor:—

J. C. Trueman	£3,068	10	0
W. Howard	2,857	0	0
John Jackson	2,689	0	0
Joseph Jackson	2,634	7	0
T. Rowley	2,500	0	0
J. Bloomfield	2,236	16	10
Jesse Jackson	2,222	0	0
W. Porter	2,065	18	9
C. Taylor	2,063	0	0

For making new roads and sewers on the Nightingale Park Estate, Bolingbroke-grove, for Messrs. H. Bragg & T. Ingram. Mr. Charles J. Bentley, Union-court, Old Broad-street, surveyor:—

Thompson	£1,675	0	0
J. Blackmore	1,600	0	0
R. & G. Neal	1,600	0	0
J. Ball	1,349	0	0
R. Mayo	1,183	18	0

For alterations and additions to the Parish Church, Llanglydwen, Carmarthenshire. Mr. E. H. Lingen-Barker, architect:—

Morgan & Lewis, Haverfordwest	£397	15	0
Lloyd & Roberts, Haverfordwest	348	0	0
Balcombe & Price, Pembroke Dock	332	10	0
Evans & Blethyn, Whitland (accepted)	274	0	0

For additional buildings connecting the Winter Garden, Tynemouth, and Skating Rink of the North-East Coast Exhibition of Naval Architecture, Marine Engineering, Fishery, Life-Saving and Coast-Lighting Appliances. Mr. William Glover, 16, Market-street, Newcastle-upon-Tyne, architect:—

Walter Scott (accepted)	£2,045	10	9

For additions and alterations at No. 18, Cornwall-terrace, Regent's Park, for Mr. G. J. Romanes, F.R.S. Mr. Mark H. Judge, architect:—

Andrews (accepted)	£987	9	0

For new schools at Pontypool, Mon., for the Trevethin School Board. Quantities supplied. Mr. E. A. Lansdowne, architect, Newport, Mon.:—

J. & W. Thomas, Pontypool	£2,494	0	0
J. Linton, Newport	1,819	0	0
J. Chapman, Pontypool	1,775	0	0
Morgan & Evans, Pontypool	1,758	0	0
H. Parfitt, Pontnewydd	1,697	10	0
J. Burguoyne, Pontypool	1,696	0	0
J. F. Williams	1,690	0	0

For the erection of a new parish-room, &c., at Harrow-green, Leytonstone, Essex. Mr. J. T. Bressey, architect, 70 and 71, Bishopsgate-street Within. Quantities supplied by Mr. F. Lee:—

Perry & Co.	£1,750	0	0
T. Boyce	1,670	0	0
A. Reed	1,633	0	0
W. Larter & Son	1,630	0	0
D. C. Jones & Co.	1,622	0	0
T. Rider & Son	1,588	0	0

For the construction of sewer in Winstanley-road, Battersea:—

B. Lapish	£1,950	0	0
Crockett	1,769	0	0
J. King	1,750	0	0
Turner & Sons	1,465	0	0
J. Mears	1,417	0	0
Davis & Attwood	1,379	0	0
G. Torkington	1,314	0	0
Cook & Co.	1,300	0	0
Richeirs & Mount	1,296	0	0
Bottoms Bros.	1,250	0	0
A. Walker	1,195	0	0

For the construction of sewer in Rosenau-road, Battersea:—

B. Lapish	£900	0	0
Richeirs & Mount	869	0	0
J. Mears	817	0	0
Crockett	805	0	0
Davis & Attwood	753	0	0
A. Walker	710	0	0
Turner & Son	698	0	0
Cook & Co.	640	0	0
J. King	630	0	0
G. Torkington	598	0	0
Bottoms Bros.	596	0	0

For the construction of sewer in Poyntz-road, Battersea:—

J. Mears	£347	0	0
G. & R. Neal	340	0	0
Cook & Co.	320	0	0
G. Torkington	317	0	0
Turner & Sons	307	0	0

For billiard-room and conservatory to house in Kemnal-road, Chislehurst, for Mr. D. Clarkson. Mr. George Lethbridge, architect. Quantities by Mr. C. H. Goode:—

Ashby Bros.	£2,140	0	0
Punnett & Sons	2,125	0	0
Manley	2,066	0	0
Higgs & Hill	2,060	0	0
Lowe	2,020	0	0
Harris & Wardrop (accepted)	1,944	0	0

For additional works at the Gloucester second County Lunatic Asylum. Messrs. John Giles & Gough, architects. Quantities by Mr. C. H. Goode:—

Engine-house, Water-tower, &c.			
Drew (accepted)	£3,685	0	0
Pumps and First Portion of Laundry Fittings.			
Haden & Son	£2,134	0	0
Berry & Son	2,049	0	0
J. & F. May (accepted)	1,900	0	0
Two Cast-iron Store Tanks and Rising Mains.			
Haden & Son	£987	0	0
Berry & Son	877	0	0
Drew	813	0	0
J. & F. May (accepted)	720	0	0
Gas-tank, Boundary-walls, &c.			
Drew (accepted)	£826	0	0

Accepted for the erection of a wing to Range Bank Schools, Halifax, as a memorial to the late Rev. Enoch Mellor, A.M., D.D. Messrs. Leeming & Leeming, Northgate-chambers, Halifax, architects. Quantities by the architects:—

Masons' Work.—Fearnley & Firth.
Carpenter and Joiners' Work.—Thos. Tully.
Plasterer and Slaters' Work.—A. S. Blackburn.
Plumber and Glaziers' Work.—Akroyd & Mills.
Heating Apparatus Work.—John Holdsworth.
Painters' Work.—Thos. Carr.

Total accepted Tenders	£723	19	0

For painting Graystoke-place Schools, Fetter-lane, for the School Board for London. Mr. E. R. Robson, architect:—

Sergeant	£239	0	0
Davis Bros.	237	0	0
Hobson	229	0	0
Knight & Warden	212	0	0
G. S. Pritchard	179	19	0

For painting Nichol-street Schools, for the School Board for London. Mr. E. R. Robson, architect:—

Sergeant	£366	0	0
Cox	340	0	0
Wood	313	0	0
G. S. Pritchard	301	0	0

For painting Hargreave Park-road Schools, for the School Board for London. Mr. E. R. Robson, architect:—

Wall Bros.	£354	0	0
McCormick	348	10	0
Boyce	343	0	0
Grover	334	0	0
Williams & Son	316	0	0
G. S. Pritchard	299	0	0

For repairs to premises after fire at 35, Whitecross-street. Messrs. Joseph & Pearson, architects:—

Lidstone	£1,050	0	0
Axford	1,045	0	0
G. S. Pritchard	998	0	0

TO CORRESPONDENTS

Borough Surveyor (it is not in our power, notwithstanding our natural politeness, to acknowledge a letter the signature of which cannot be deciphered even to the extent of the initial letters).—J. S. (we cannot return to the discussion in question).—H. S. S. (cancelled, having appeared elsewhere).—E. M. K. (communications sent will receive consideration).—E. H. S.—U. A. S.—O. H.—M. & Co.—H. H. —G. T.—L. & L.—C. H. G.—E. W. C.—J. P. S.—J. P.—J. W. H.—J. L. W.—Le G. & Co.—R. P. S.—W. H. P.—S. Son & W.—S. H. T.—W.—W. W.—J. S. B.—J. F.—R. B. G.—C. & W.—T. W. C.—J. W. B. —W. G.—W. W.—J. C. T.—H. P.—C. J. B.—E. H. L. B.—G. W.

All statements of facts, lists of tenders, &c. must be accompanied by the name and address of the sender, not necessarily for publication.

We are compelled to decline pointing out books and giving addresses.

Note.—The responsibility of signed articles, and papers read at public meetings, rests, of course, with the authors.

NOTICE TO SUBSCRIBERS.

THE INDEX and TITLE-PAGE for Volume XLII. (January to June, 1882) were given as a Supplement with the last Number.

A COLOURED TITLE-PAGE may be had, gratis, on personal application at the Office.

CLOTH CASES for Binding the Numbers are now ready, price 2s. 6d. each; also

READING-CASES (Cloth), with Strings, to hold a Month's Numbers, price 2s. each

THE FORTY-SECOND VOLUME of "The Builder" (bound) is now ready, price Twelve Shillings and Sixpence.

SUBSCRIBERS' VOLUMES, on being sent to the Office, will be bound at a cost of 3s. 6d. each.

CHARGES FOR ADVERTISEMENTS.

SITUATIONS VACANT, PARTNERSHIPS, APPRENTICESHIPS, TRADE, AND GENERAL ADVERTISEMENTS.

Six lines (about fifty words) or under	4s. 6d.
Each additional line (about ten words)	0s. 6d.

Terms for Series of Trade Advertisements, also for Special Advertisements on front page, Competitions, Contracts, Sales by Auction, &c. may be obtained on application to the Publisher.

SITUATIONS WANTED.

FOUR Lines (about THIRTY words) or under	2s. 6d.
Each additional line (about ten words)	0s. 6d.

REPLIES TO ADVERTISEMENTS,

Addressed Box ——, Office of "The Builder,"

Cannot be forwarded, but *must* in all cases be *called for*, and the Office Receipt produced.

THE CHARGE FOR A BOX IS AS UNDER:—

For "Situations Wanted" Advertisements	3d. per Week.
For all other Advertisements	6d. per Week.

PREPAYMENT IS ABSOLUTELY NECESSARY.

⁂ Stamps *must not* be sent, but all small sums should be remitted by Cash in Registered Letter or by Money Order, payable at the Post-office, Covent-garden, W.C. to

DOUGLAS FOURDRINIER, Publisher,
Addressed to No. 46, Catherine-street, W.C.

Advertisements for the current week's issue must reach the Office before THREE o'clock p.m. on THURSDAY.

The Publisher cannot be responsible for DRAWINGS, TESTIMONIALS, &c. left at the Office in reply to Advertisements, and strongly recommends that of the latter COPIES ONLY should be sent.

TERMS OF SUBSCRIPTION.

"THE BUILDER" is supplied DIRECT from the Office to residents in any part of the United Kingdom at the rate of 19s. per annum, PREPAID. Remittances payable to DOUGLAS FOURDRINIER, Publisher, 46, Catherine-street, W.C.

Best Bath Stone.
WESTWOOD GROUND,
Box Ground, Combe Down,
Corsham Down,
And Farleigh Down.
RANDELL, SAUNDERS, & CO., Limited,
Corsham, Wilts. [Advt.

Box Ground Stone.
Is the best for use in all exposed positions, being a well-known and tried weather stone.
50,000 feet cube in stock.
PICTOR & SONS,
Box, Wilts. [Advt.

Doulting Freestone and Ham Hill Stone of best quality, in blocks, or prepared ready for fixing. An inspection of the Doulting Quarries is respectfully solicited; and Architects and others are CAUTIONED against inferior stone. Prices, delivered to any part of the United Kingdom, given on application to CHARLES TRASK, Norton-sub-Hamdon, Ilminster, Somerset.—Agent, Mr. E. WILLIAMS, 73, Charlotte-street, Portland-place, W. [Advt.

Doulting Stone and Ham Hill Stone, of best quality. Prices and Estimates, including delivery to any Station, on application to Staple & Hann, Quarrymen, Stoke-sub-Hamden, Ilminster. Agent, Mr. E. CRICKMAY, Langbourn-chambers, 17, Fenchurch-street, E.C. [Advt.

Asphalte.
Seyssel, Patent Metallic Lava, and
White Asphaltes.
M. STODART & CO.
Office:
No. 90, Cannon-street, E.C. [Advt.

Asphalte.—The Seyssel and Metallic Lava Asphalte Company (Mr. H. Glenn), Office, 38, Poultry, E.C.—The best and cheapest materials for damp courses, railway arches, warehouse floors, flat roofs, stables, cow-sheds and milk-rooms, granaries, tun-rooms, and terraces. [Advt.

Immense quantities of
DRY WAINSCOT,
DRY MAHOGANY,
DRY WALNUT,
in all thicknesses.
B. J. HUDSON & SONS,
Whitfield-st., W., and Great Peter-st., S.W.
London. [Advt.

"Lightning."—Accidents to buildings would be unknown if J. W. GRAY & SONS' Patent System of Conductors, as fitted to the Houses of Parliament, the Royal Palaces, Principal Churches, Cathedrals, and Public Buildings, were universally adopted.—Estimates free on application at 58, Fenchurch-street, London, E.C.—[Advt.]

MICHELMORE & REAP,
Manufacturers of
CHARLES COLLINGE'S PATENT.
COLLINGE'S PATENT HINGES,
LEVER, SCREW, & BARREL BOLTS,
Self-Acting "FALL DOWN" GATE STOPS,
and IMPROVED GATE FITTINGS of every Description.
36A, BOROUGH ROAD,
LONDON, S.E.
Discount to Builders.
Illustrated List two stamps.

ZINC ROOFING.
F. BRABY & CO.,
LONDON, LIVERPOOL, GLASGOW.
VIEILLE MONTAGNE BRAND.
NO SOLDER.
NO EXTERNAL FASTENINGS.
PARTICULARS ON APPLICATION. CHIEF OFFICE: 360, EUSTON ROAD, LONDON.